ENSR International

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October 5, 2005

Mr. Craig Hunt
North Coast Water Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 94503-2097

RE: Quarterly Groundwater Monitoring Results/ Remedial System Status Report, Third Quarter 2005
Former Unocal Bulk Plant No. 0813
122 Leslie Street, Ukiah, California
RWQCB No. 1NMC405
ENSR Project No. 06940-264-100

Dear Mr. Hunt:

ENSR Corporation (ENSR) has been authorized by Union Oil Company of California (Unocal) to perform quarterly groundwater monitoring and to operate and maintain the groundwater remediation system at the site located at 122 Leslie Street, Ukiah, California (**Figure 1**). The site is a former bulk plant with a chain link fence around its perimeter. The locations of former and current site features are illustrated on **Figure 2**. Quarterly groundwater monitoring is intended to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. This report summarizes results of the samples collected from the site during the third quarter 2005. A section has been added to this report summarizing the status of the ozone sparging system that began operation in April 2005. The field work was performed in accordance with the field methods and procedures included in **Attachment A**.

Background

Two groundwater monitoring wells (MW-7 and MW-12) were installed as part of a soil and groundwater investigation associated with the former D.Z., Inc. Bulk Plant located adjacent to the former Unocal southern property boundary at 134 Leslie Street. In 1999, a soil and groundwater investigation was conducted that included advancement of on-site soil borings B-1 through B-7. A supplemental evaluation of soil and groundwater followed that included the advancement of on-site soil boring B-8 and the installation of on-site groundwater monitoring wells MW-1 and MW-2. A further supplemental evaluation of soil and groundwater beneath and in the vicinity of the site was conducted in 2002 that included drilling eight soil borings and installing groundwater monitoring wells MW-3 through MW-6 and MW-8. A door-to-door sensitive receptor survey within a 500-foot radius of the site and an underground utility search within the vicinity of the site were conducted in 2002.

In a letter dated November 20, 2003, the Regional Water Quality Control Board, North Coast Region (RWQCB) approved a Corrective Action Plan prepared by Environmental Resolutions, Inc. (ERI) of Petaluma, California dated June 18, 2003. On May 20, 2004, the RWQCB verbally approved a remedial design plan (RDP) dated February 3, 2004 prepared by ERI and reviewed by ENSR. The approved remedial options were ozone microsparging (C-Sparge™) and soil vapor extraction (SVE).

In late July 2003, ERI installed the nine C-Sparge/SVE wells associated with the remediation system at the site. Upon review of the completion depths of the C-Sparge/SVE wells, it is ENSR's opinion that the C-Sparge wells may be set too deep to effectively remediate the groundwater beneath the site. In a telephone conversation with the RWQCB on October 14, 2004, ENSR proposed collecting groundwater samples from selected on-site C-Sparge wells for chemical analysis to determine if the groundwater has been impacted at the screened interval depths [approximately 32 to 35 feet below ground surface (bgs)] of the C-Sparge wells. Based on the analytical results, ENSR submitted a *Revised Remedial Design Plan* dated December 7, 2004. ENSR received a verbal approval from the RWQCB in mid-December 2004 and began implementation of the revised RDP in early January 2005.

On January 12 and 13, 2005, an ENSR geologist supervised Woodward Drilling Company of Rio Vista, California (C-57 License #710079) advance soil borings SP-10 through SP-18 each to an approximate depth of 20 feet bgs. The borings were advanced using a truck mounted drill rig using 8.25-inch diameter hollow stem augers. The soil borings were completed as air sparge wells SP-10 through SP-18. Sparge well construction details will be provided in ENSR's forthcoming Advanced Oxidation Process/ Biostimulation System and Remediation Well Installation Report.

A construction subcontractor (W.A. Craig, Inc. of Dixon, California) installed the ozone sparging system at the site in March and April 2005 under ENSR supervision. System operation began on April 18, 2005.

Groundwater Level Measurements

Depth to groundwater levels were measured in monitoring wells MW-1 through MW-9 on August 16, 2005 and are presented in **Table 1.** The ozone sparging system was shut down to allow groundwater levels to stabilize prior to collecting depth to groundwater measurements. Groundwater elevations were calculated and were used to construct a groundwater elevation contour map included as **Figure 3**.

On August 16, 2005, the groundwater flow direction was generally southeast with an average hydraulic gradient of approximately 0.005 feet per foot (ft/ft). This gradient is consistent with hydraulic gradients historically observed at the site. The groundwater elevation calculated at MW-2 is inconsistent with the groundwater elevations indicated for the surrounding monitoring wells and is thought to result from an incorrect surveying elevation for MW-2. Copies of the groundwater sampling information sheets are included in **Attachment B**. A summary of groundwater elevation data determined to date is presented in **Table 1**.

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-9 on August 16, 2005. Groundwater samples were submitted to Alpha Analytical Laboratories in Ukiah, California (a state-certified laboratory) under chain-of-custody protocols. Samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8260B, total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8260, total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015, Total Oil and Grease by EPA Method 1664, and total lead by EPA Method 200.9. Additionally, the samples taken from MW-1 and MW-2 were analyzed for bromate and bromide by EPA Method 300.1, hexavalent chromium by EPA Method 7196, molybdenum and vanadium by EPA Method 200.7, selenium by EPA Method 200.9, and pH by EPA Method 150.1. These analytes were added to the sampling regimen to monitor for the formation of dissolved phase metals resulting from the oxidation reaction created by the ozone application.

Cumulative groundwater sampling results are summarized in **Table 1**. A map depicting dissolved concentrations of TPHg, TPHd, and benzene in groundwater for the third quarter 2005 is included as **Figure 4**. Iso-concentration contour maps for TPHd, TPHg, and benzene in groundwater for the third quarter 2005 sampling event are included as **Figure 5**, **Figure 6**, and **Figure 7**, respectively. A copy of the certified laboratory analytical report with chain-of-custody documentation is included in **Attachment C**.

Ozone Sparging System Description

The Advanced Oxidation Process/Biostimulation (AOP/B) system is primarily an ozone sparging system with capabilities for enhanced chemical oxidation and biostimulation through the addition of other oxidizing agents and/or nutrients.

The AOP/B system delivers ozonated air from inside a modified freight container (remediation enclosure), to the subsurface via sparge tubing and PVC piping. The ozonated air is delivered through micro-porous sparge points installed in the bottom of sparge wells several feet below the water table. Ozonated air is typically delivered at flows of approximately one to five standard cubic feet per minute (SCFM) and at pressures from 7 to 25 pounds per square inch (PSI), depending on subsurface conditions. Ozone concentrations in the process flow stream typically range from 1,500 parts per million by volume (ppmv) to 10,000 ppmv.

The AOP/B system is a programmable-logic-controller (PLC) automated system capable of operating individual sparge points or several sparge points in any desired sequence. The system is equipped with an ozone sensor that transmits a signal to the PLC which is programmed to shut the system down in the event of an ozone leak within the remediation enclosure. The remediation enclosure is air conditioned and thermally insulated to maintain a constant temperature and thereby protect the electronic components. The thermal insulation also serves as a sound barrier to reduce noise levels outside of the remediation enclosure created by operation of the air compressor, air conditioner, and cooling fans.

Ozone Sparging System Operation

ENSR personnel performed the AOP/B system startup testing from April 14 to April 18, 2005. Details of the system installation and startup testing will be provided in ENSR's *Advanced Oxidation Process/ Biostimulation System and Remediation Well Installation Report* to be submitted in the fourth quarter of 2005. Continuous operation of the AOP/B system began on April 18, 2005.

During startup testing, ENSR personnel established the sparging sequence and flow parameters for the 18 sparge points at the site. The system currently cycles between sparge points on a 37-minute sequence per cycle. Each sequence begins with five minutes of air flow, followed by 30 minutes of air/ozone flow, then followed by two minutes of air flow (to purge the conveyance piping and tubing). The program executes 12 air-ozone-air cycles, shuts down for 15 minutes, and then repeats the entire sequence.

Sparging is performed sequentially between sparge points to minimize the local impact on the hydraulic gradient and to prevent further mobilization of the contaminant plume. The ozone application time interval relates to the approximate time it takes for a consistent flow pattern to develop and to achieve an optimum radius of influence. The system shuts down after the entire sequence to allow the equipment to cool.

Ozone Sparging System Performance

ENSR is documenting the AOP/B system performance with monthly monitoring and grab sampling at MW-1 and MW-2. Monthly samples have been collected at MW-1 and MW-2 since the system startup in April 2005. These groundwater samples are being analyzed for TPHg, TPHd, and BTEX compounds. Additional analyses are also performed to ascertain the possible presence of dissolved metals, notably hexavalent chromium. Results for samples collected at MW-1 and MW-2 as part of the remedial status evaluation are provided in **Table 2**.

Due to inconsistent results between the monthly grab samples and the quarterly three-casing-volume purged samples, ENSR modified the monthly sampling protocol to eliminate the collection of grab samples and collect only three-casing-volume purged samples. All future monthly samples will be collected from MW-1 and MW-2 after purging according to the same protocol as the quarterly sampling. ENSR will continue with monthly sampling at MW-1 and MW-2 through the first 6 to 9 months of system operation. Graphs depicting TPHg and TPHd concentrations over time for MW-1 and MW-2 are included as **Figures 8** and **9**, respectively.

The system was shut down between June 16, 2005 and August 24, 2005 for system maintenance and necessary equipment upgrades.

Conclusions/Recommendations

- Elevated levels of TPHd continue to be detected in monitoring wells MW-1 through MW-5, and in MW-7 through MW-9 with a maximum concentration of 83,000 micrograms per liter (μg/L) in MW-1.
- TPHg continues to be detected in monitoring wells MW-1 through MW-3 with a maximum concentration of 2,000 μg/L in MW-1.
- Benzene concentrations were not detected above the laboratory reporting limits in any monitoring wells sampled during the third quarter 2005 event with the exception of MW-1, which had a concentration of 0.39 μg/L.

The spike in TPHd and TPHg concentrations in MW-1 from the August 2005 quarterly sampling event is thought to be due to rebound occurring because of the AOP/B system downtime. Subsequent sampling events at MW-1 will help to determine if the most recent results are an anomaly or if a trend is developing at MW-1.

ENSR recommends continued monthly groundwater monitoring in MW-1 and MW-2 as well as quarterly groundwater monitoring to assess the dissolved concentrations of petroleum hydrocarbon constituents. ENSR intends to request a meeting with the North Coast Water Board in late 2005 to assess the AOP/B system performance and discuss the path toward regulatory site closure.

Future Work

The next quarterly groundwater monitoring and sampling event is scheduled for November 2005. ENSR will also be monitoring performance of the ozone sparging system with monthly monitoring at MW-1 and MW-2, Quarterly updates will be provided.

Remarks/Signatures

The interpretations in this report represent our professional opinions and are based, in part, on the information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended. If you have any questions regarding this project, please contact Mr. Paul Wadding at (916) 362-7100.

Sincerely,
ENSR Corporation

Mike Fischer, E.I.T.
Project Engineer

Paul R. Wadding, P.E.
Project Manager

D. N. Peacock, Ph.D., P.G. #7801
Senior Project Manager

MF/dk

cc: Mr. John Frary, Union Oil Company of California

PROFESSIONAL GEOLOGIST • DAVID N. PEACOCK No. 7801 • STATE OF CALIFORNIA

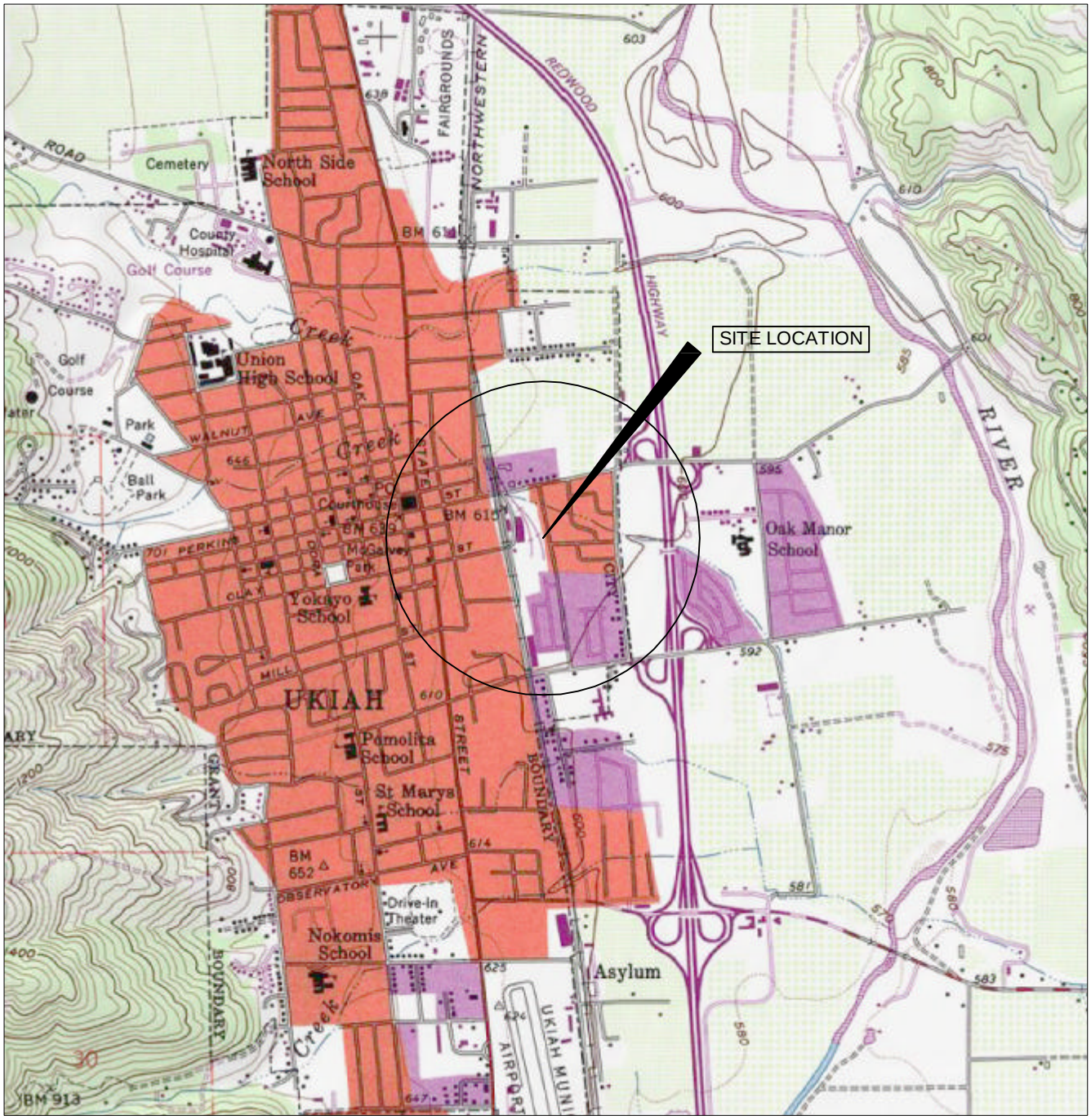
Attachments

Figures
1 Site Location Map
2 Site Plan
3 Groundwater Elevation Contour Map, August 16, 2005
4 Petroleum Hydrocarbon Concentration Map, August 16, 2005
5 TPHd Isoconcentration Map, August 16, 2005
6 TPHg Isoconcentration Map, August 16, 2005
7 Benzene Isoconcentration Map, August 16, 2005
8 TPHg and TPHd Concentration in MW-1
9 TPHg and TPHd Concentration in MW-2

Tables
1 Groundwater Monitoring Data and Analytical Results
2 Ozone Sparging System Monitoring

Attachments

A Field Methods and Procedures
B Groundwater Sampling Information Sheets
C Laboratory Analytical Results With Chain-Of-Custody Documentation



Map created with TOPO - 2003 National Geographic

MAP LOCATION

SOURCE: BASE MAP FROM USGS UKIAH, CA
7.5 MINUTE TOPOGRAPHIC 1975

N

0 2000

Approximate Scale in Feet

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SITE LOCATION MAP

Former UNOCAL Bulk Plant 0813
122 Leslie Street
Ukiah, California

DRAWN BY	DATE	PROJECT NUMBER
G BORCHARDT	12/18/2003	06940-264

FIGURE

1

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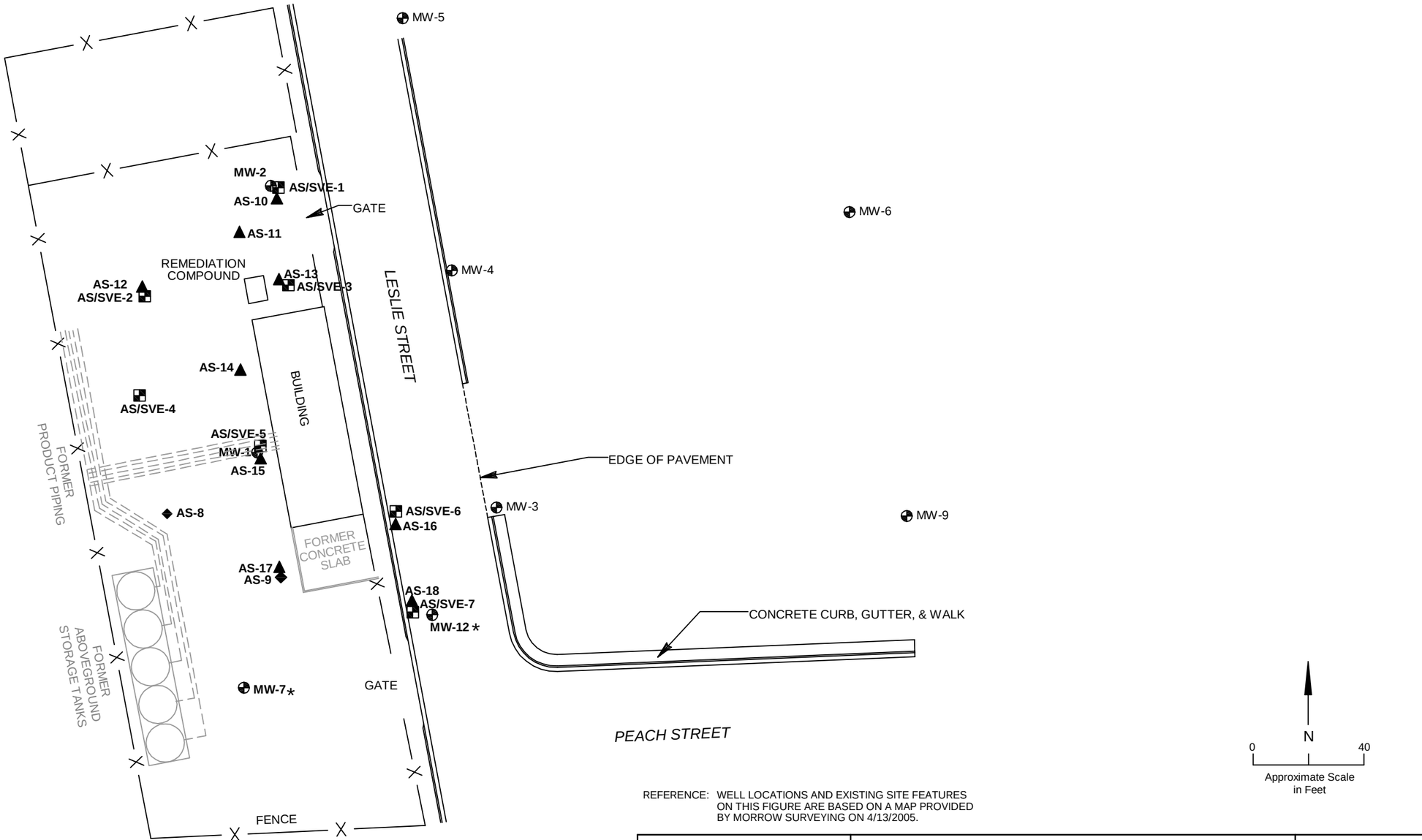

REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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SITE PLAN

Former UNOCAL Station 0813
122 Leslie Street
Ukiah, California

Quarterly Monitoring Report
3rd Quarter 2005

FIGURE 2

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264

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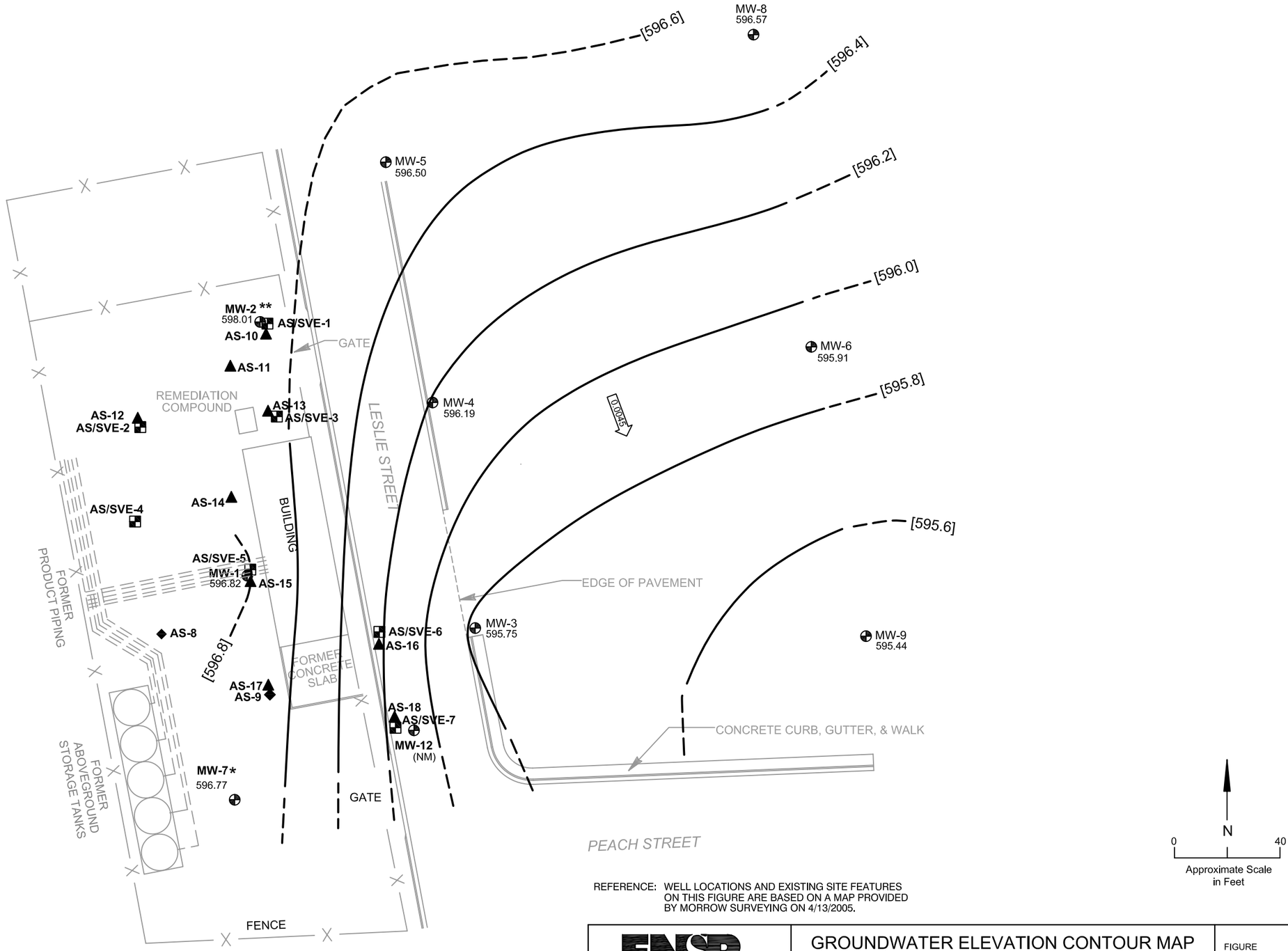

MW-9	GROUNDWATER MONITORING WELL
MW-7*	D.Z., INC. GROUNDWATER MONITORING WELL
◆	SPARGE WELL (LOWER AQUIFER)
■	AS/SVE WELL
▲ AS-10	SPARGE WELL (UPPER AQUIFER)
596.82	GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
[596.2]	GROUNDWATER ELEVATION CONTOUR
0.006	APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT IN Ft/Ft
**	NOT USED IN CONTOURING
NM	NOT MEASURED

REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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GROUNDWATER ELEVATION CONTOUR MAP AUGUST 16, 2005

FIGURE 3

Former UNOCAL Station 0813
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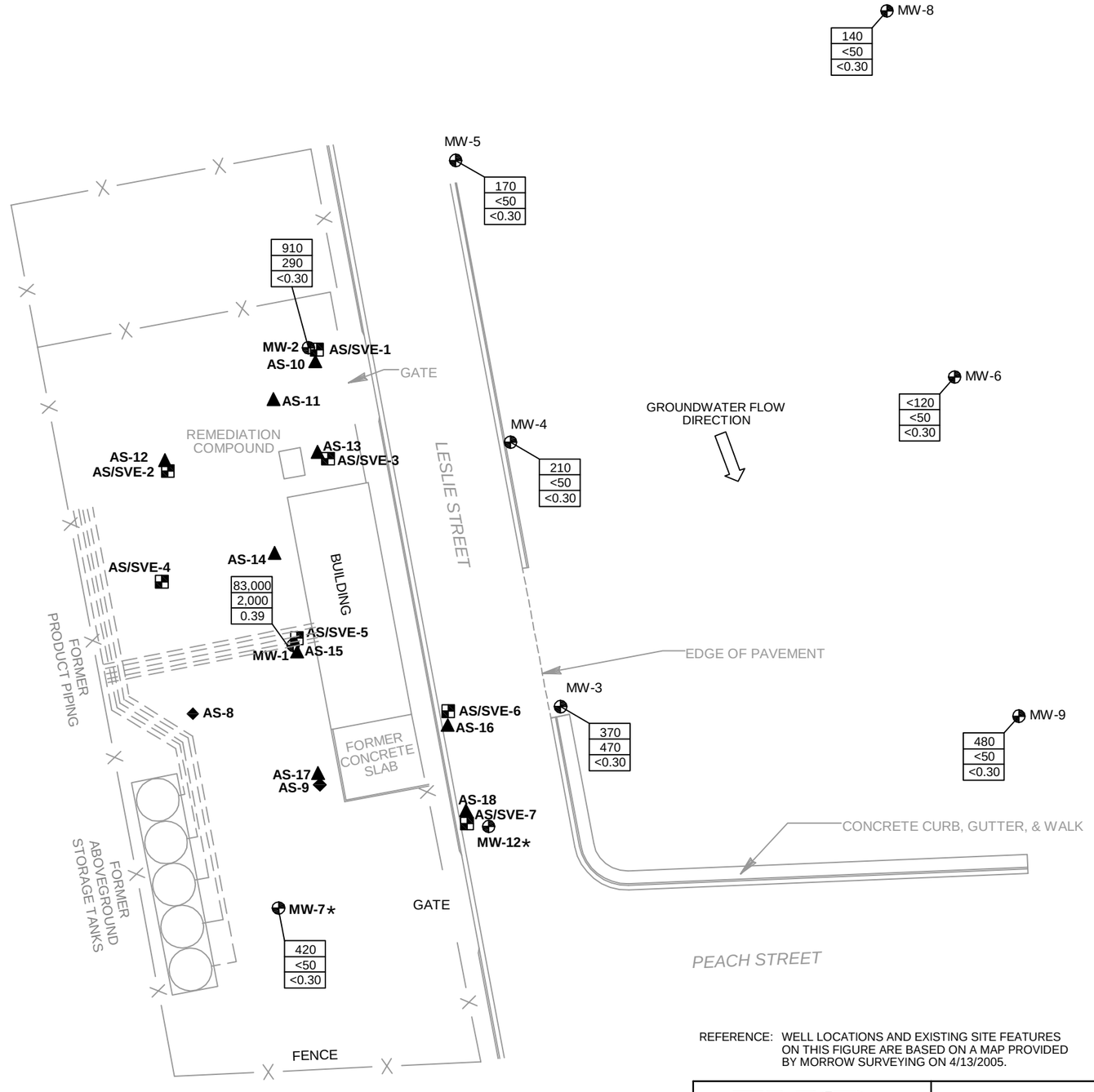
Quarterly Monitoring Report
3rd Quarter 2005

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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PETROLEUM HYDROCARBON CONCENTRATION MAP AUGUST 16, 2005

Former UNOCAL Station 0813
122 Leslie Street
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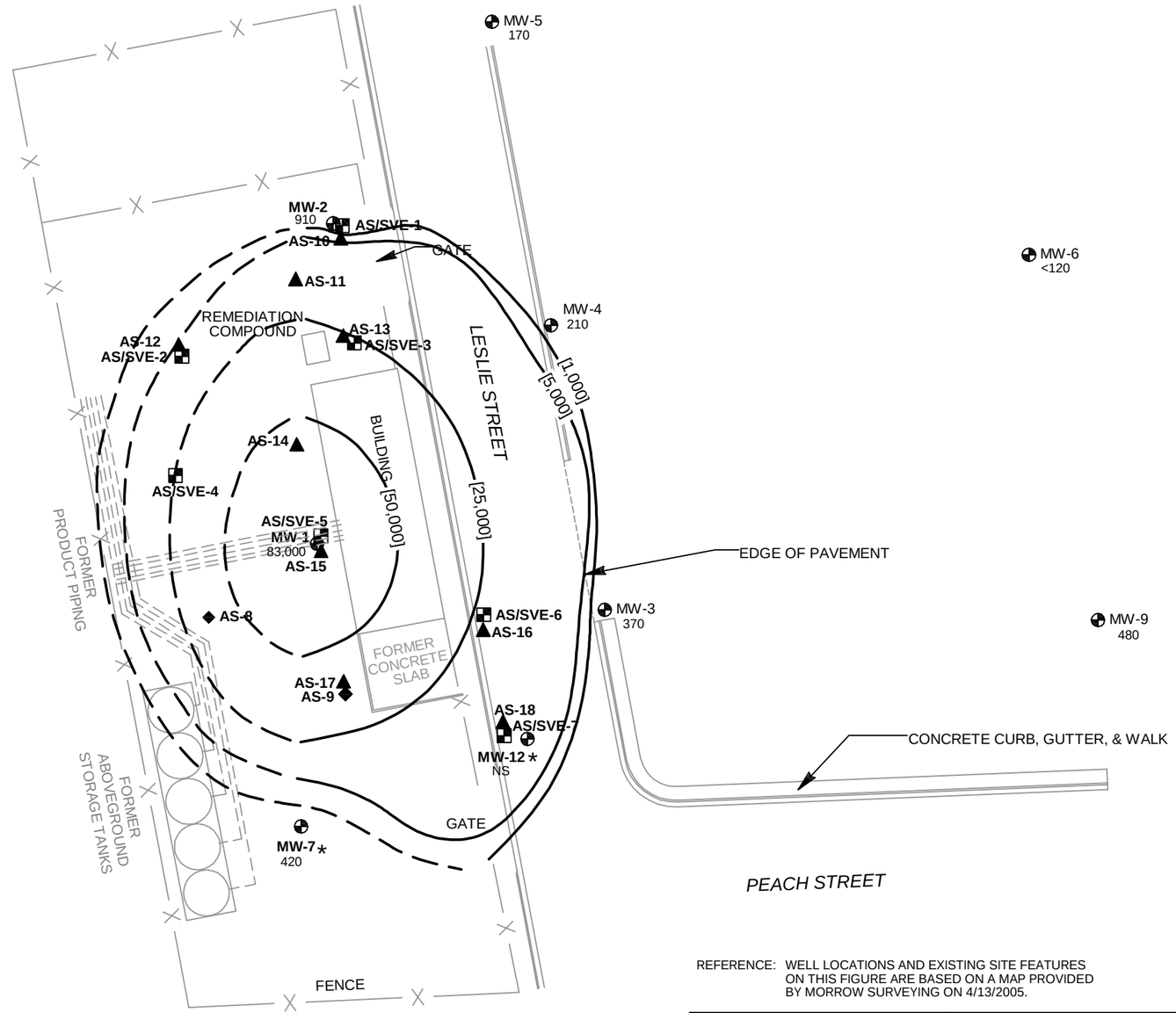
Quarterly Monitoring Report
3rd Quarter 2005

FIGURE 4

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264

J:\Projects\06940\0813-264\Working\CAD\3Q05\0813 GW CONC 3Q05 FIG4.dwg, 9/30/2005 9:11:11 AM



MW-9 GROUNDWATER MONITORING WELL

MW-7⋆ D.Z., INC. GROUNDWATER MONITORING WELL

◆ SPARGE WELL (LOWER AQUIFER)

■ AS/SVE WELL

▲ AS-10 SPARGE WELL (UPPER AQUIFER)

<50 TPHd CONCENTRATION IN µg/L

--[1,000]-- TPHg ISO-CONCENTRATION CONTOUR

NS NOT SAMPLED

NOTE: CONTOURS GENERATED BY SURFER

REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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TPHd ISO-CONCENTRATION MAP
AUGUST 16, 2005

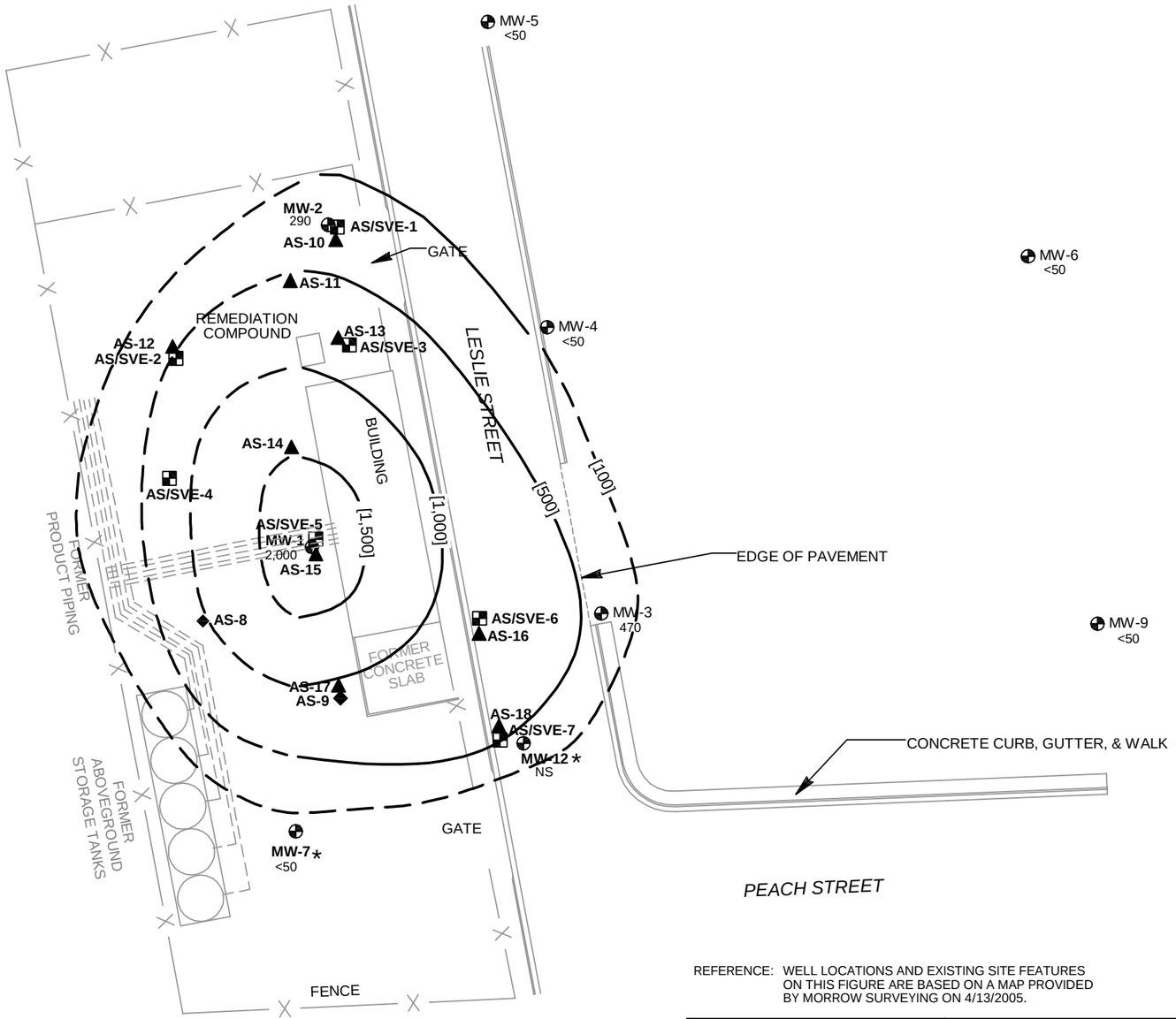
Former UNOCAL Station 0813
122 Leslie Street
Ukiah, California

Quarterly Monitoring Report
3rd Quarter 2005

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264

FIGURE 5

J:\Projects\06940\0813-264\Working\CAD\3Q05\0813 TPHD 3Q05 FIG5.dwg, 9/30/2005 9:12:13 AM



- MW-9 GROUNDWATER MONITORING WELL
- MW-7★ D.Z., INC. GROUNDWATER MONITORING WELL
- ◆ SPARGE WELL (LOWER AQUIFER)
- ■ AS/SVE WELL
- ▲ AS-10 SPARGE WELL (UPPER AQUIFER)
- <50 TPHg CONCENTRATION IN µg/L
- [100] TPHg ISO-CONCENTRATION CONTOUR
- NS NOT SAMPLED

NOTE: CONTOURS GENERATED BY SURFER

N

0 40

Approximate Scale in Feet

REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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TPHg ISO-CONCENTRATION MAP AUGUST 16, 2005

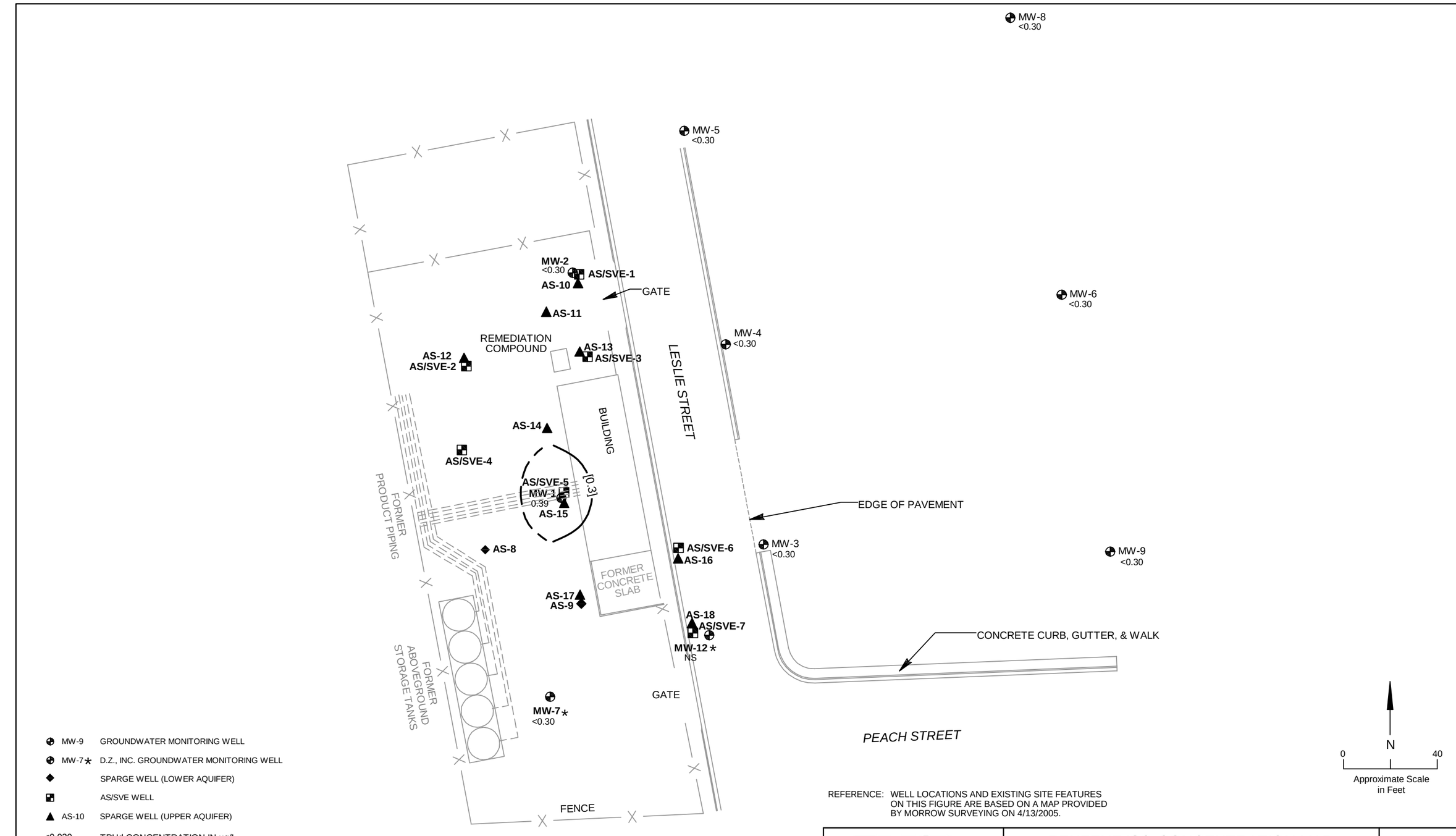
Former UNOCAL Station 0813
122 Leslie Street
Ukiah, California

Quarterly Monitoring Report
3rd Quarter 2005

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264

FIGURE 6

J:\Projects\06940\0813-264\Working\CAD\3Q05\0813 TPHG 3Q05 FIG6.dwg, 9/30/2005 9:13:08 AM



MW-9 GROUNDWATER MONITORING WELL

MW-7 * D.Z., INC. GROUNDWATER MONITORING WELL

SPARGE WELL (LOWER AQUIFER)

AS/SVE WELL

AS-10 SPARGE WELL (UPPER AQUIFER)

<0.030 TPHd CONCENTRATION IN µg/L

[0.3] TPHg ISO-CONCENTRATION CONTOUR

NS NOT SAMPLED

NOTE: CONTOURS GENERATED BY SURFER

REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

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BENZENE ISO-CONCENTRATION MAP AUGUST 16, 2005

Former UNOCAL Station 0813
122 Leslie Street
Ukiah, California

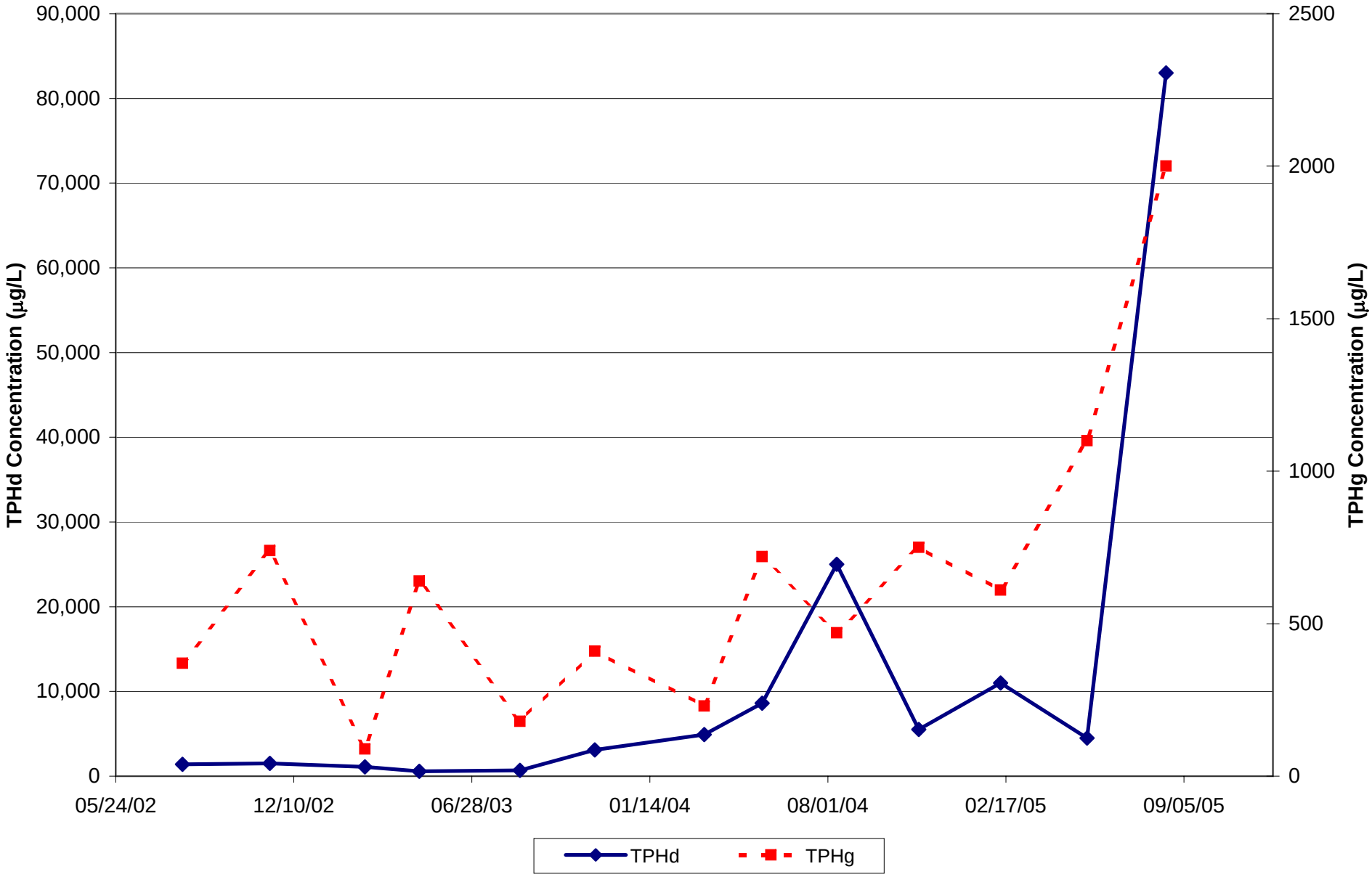
Quarterly Monitoring Report
3rd Quarter 2005

DRAWN BY	REVIEWED BY	DATE	PROJECT NUMBER
P RHOADS	M FISCHER	9/23/2005	06940-264

FIGURE 7

J:\Projects\06940\0813-264\Working\CAD\3Q05\0813 BENZENE 3Q05 FIG7.dwg, 9/30/2005 9:14:12 AM

Figure 8 - TPHg and TPHd in MW-1



06940-264 Unocal # 0813 ENSR Corporation

Figure 9 - TPHd and TPHg Concentrations in MW-2

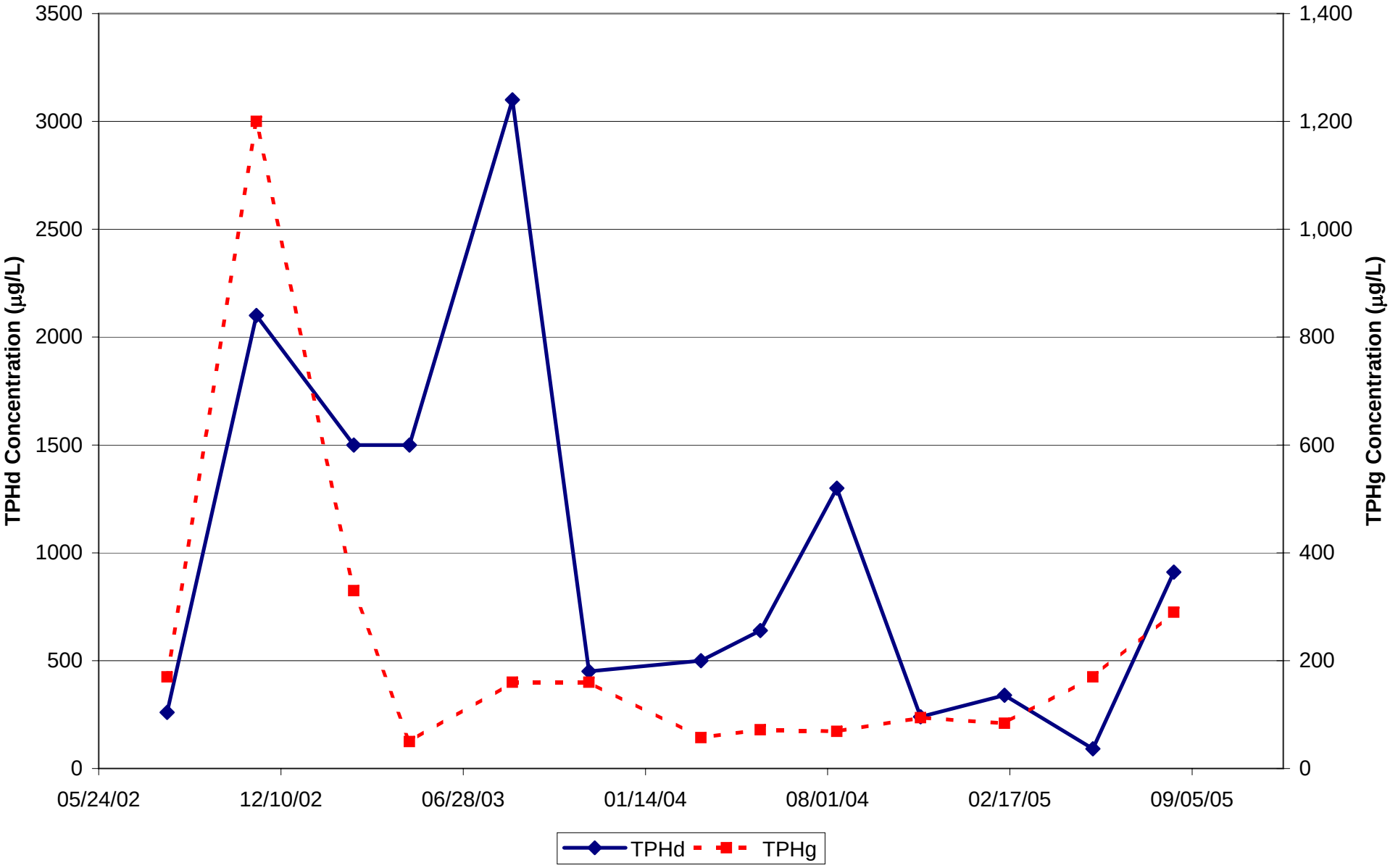


Table 1
Groundwater Monitoring Data and Analytical Results
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	TPHd (ug/L)	TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	T. Lead (ug/L)	TOG (ug/L)	PRE-PURGE D.O. (mg/L)
MW-1												
607.93	08/07/02[1]	16.11	591.82	1,400	370[2]	<0.50	<0.50	1.3	<0.50	<75	<5,000	--
	11/13/02	17.35	590.58	1,500	740	<0.50	<0.50	6.7	<0.50	<75	<5,000	--
	02/28/03	7.26	600.67	1,100	89	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	04/30/03	4.29	603.64	570	640	<0.50	<0.50	1.8	<0.50	<75	<5,000	--
	08/21/03	13.93	594.00	690	180	1.5	<0.50	0.87	2.1	<50	<5,000	**--**
	11/13/03	20.25	587.68	3,100	410	<0.50	<0.50	0.64	<0.50	<75	<5,000	--
	03/15/04	6.65	601.28	4,900	230 [4]	<0.50	<0.50	<0.50	2.0	7.6	<5,000	**--**
	05/19/04	10.50	597.43	8,600	720	<0.50	<0.50	3.8	3.7	9.0	5,000	--
	08/11/04	16.81	591.12	25,000	470 [4]	1.4	<1.0 [6]	2.2	4.5	15	<5,000	--
	11/11/04	17.73	590.20	5,500	750 [4]	1.3	4.1	11	6.4	6.8	<5,000	--
	02/11/05	7.67	600.26	11,000	610 [4]	<0.50	0.62	2.5	3.4	<5.0	<5,000	--
608.62	05/19/05	6.04	602.58	4,500	1,100	<1.5	<1.5	<2.5	<2.5	5.4	--	--
	08/16/05	**11.80**	**596.82**	**83,000**	**2,000**	**0.39**	**<0.30**	**<0.50**	**<0.50**	**22**	**5,200**	**0.17**
MW-2												
607.78	08/07/02[1]	17.35	590.43	260	170[2]	<0.50	<0.50	0.91	<0.50	<75	<5,000	--
	11/13/02	20.23	587.55	2,100	1,200	<1.0	<1.0	19	<1.0	<75	<5,000	--
	02/28/03	7.55	600.23	1,500	330	<0.50	<0.50	2.4	0.57	<75	<5,000	--
	04/30/03	4.87	602.91	1,500	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,100	--
	08/21/03	14.54	593.24	3,100[2]	160	<0.50	0.60	1.1	4.0	<50	<5,000	**--**
	11/13/03	21.04	586.74	450	160	<0.50	<0.50	0.67	<0.50	<75	<5,000	--
	03/15/04	7.13	600.65	500	57 [4]	<0.50	<0.50	<0.50	<1.0	8.4	<5,000	**--**
	05/19/04	10.77	597.01	640	72	<0.50	<0.50	1.7	2.9	6.9	<5,000	--
	08/11/04	18.00	589.78	1,300	69 [4]	<0.50	<0.50	0.88	2.0	12	<5,000	--
	11/11/04	20.08	587.70	240	94 [4]	<0.50	0.99	2.0	2.5	<5.0	<5,000	--
	02/11/05	7.37	600.41	340	84 [4]	<0.50	0.87	1.5	<1.0	<5.0	<5,000	--
608.56	05/19/05	7.73	600.83	91	170	<0.30	<0.30	<0.50	<0.50	2.2	**--**	**--**

Table 1
Groundwater Monitoring Data and Analytical Results
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	TPHd (ug/L)	TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	T. Lead (ug/L)	TOG (ug/L)	PRE-PURGE D.O. (mg/L)
MW-2 (Cont.)	**08/16/05**	**10.55**	**598.01**	**910** [7]	**290**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**56**	**<5,000**	**0.19**
MW-3												
607.14	08/07/02[1]	17.29	589.85	28,000	1,300[2]	<0.50	<0.50	7.8	<0.50	360	5,300	--
	11/13/02	20.73	586.41	9,100	570	<5.0	<5.0	<5.0	<5.0	<75	5,400	--
	02/28/03	7.78	599.36	220	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	04/30/03	5.04	602.10	420	56	<0.50	<0.50	1.0	<0.50	<75	<5,000	--
	08/21/03	14.45	592.69	460	71	1.6	<0.50	<0.50	1.1	<50	<5,000	**--**
	11/13/03	21.45	585.69	1,300	260	2.4	<0.50	<0.50	<0.50	<75	<5,000	--
	03/15/04	7.38	599.76	360	87	0.71	<0.50	<0.50	<1.0	<5.0	<5,000	**--**
	05/19/04	10.90	596.24	430	110	<0.50	0.74	0.99	<1.0	<5.0	<5,000	--
	08/11/04	17.88	589.26	1,200	140 [4]	<0.50	0.56	1.3	2.4	<5.0	<5,000	--
	11/11/04	20.30	586.84	1,900	310 [4]	0.77	1.1	5.6	4.5	<5.0	<5,000	--
	02/11/05	7.64	599.50	230	<50	<0.50	0.59	0.82	<1.0	<5.0	<5,000	--
607.88	05/19/05	6.31	601.57	<50	270	<0.30	<0.30	<0.50	<0.50	<2.0	**--**	**--**
	08/16/05	**12.13**	**595.75**	**370** [8]	**470**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**2.4**	**<5,000**	**--**
MW-4												
607.29	08/07/02[1]	17.16	590.13	69	<50	<0.50	<0.50	<0.50	<0.50	540	<5,000	--
	11/13/02	20.35	586.94	130	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	02/28/03	7.49	599.80	240	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	04/30/03	4.82	602.47	240	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,100	--
	08/21/03	14.54	592.75	120[2]	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000	**--**
	11/13/03	21.25	586.04	NS*	NS*	NS*	NS*	NS*	NS*	NS*	NS*	NS*
	03/15/04	7.02	600.27	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	**--**
	05/19/04	10.60	596.69	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	08/11/04	17.77	589.52	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--

Table 1
Groundwater Monitoring Data and Analytical Results
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	TPHd (ug/L)	TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	T. Lead (ug/L)	TOG (ug/L)	PRE-PURGE D.O. (mg/L)
MW-4	11/11/04	20.00	587.29	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
(Cont.)	02/11/05	7.28	600.01	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
608.07	05/19/05	6.26	601.81	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	--	--
	08/16/05	**11.88**	**596.19**	**210 [8]**	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**3.0**	**<5,000**	**--**
MW-5												
607.64	08/07/02[1]	17.33	590.31	4,100	210[2]	<0.50	<0.50	<0.50	<0.50	310	<5,000	--
	11/13/02	20.38	587.26	1,100	74	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	02/28/03	7.39	600.25	6,300	<50	<0.50	<0.50	<0.50	<0.50	<75	11,000	--
	04/30/03	4.81	602.83	3,700	<50	<0.50	<0.50	<0.50	<0.50	<75	6,600	--
	08/21/03	14.44	593.20	880[2]	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000	--
	11/13/03	21.15	586.49	30,000	61	<0.50	<0.50	<0.50	<0.50	130	7,300	--
	03/15/04	6.92	600.72	1,600 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	05/19/04	10.58	597.06	<50	<50	<0.50	<0.50	0.53	1.0	<5.0	17,000	--
	08/11/04	17.92	589.72	8,800 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	11/11/04	20.02	587.62	4,800 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	02/11/05	7.15	600.49	<50	<50	<0.50	<0.50	<0.50	<1.0	5.3	<5,000	--
608.40	05/19/05	6.16	602.24	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	--	--
	08/16/05	**11.90**	**596.50**	**170 [8]**	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**3.0**	**5,000**	**--**
MW-6												
606.60	08/07/02[1]	16.75	589.85	<50[3]	<50	<0.50	<0.50	<0.50	<0.50	260	<5,000	--
	11/13/02	20.57	586.03	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	02/28/03	7.10	599.50	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	04/30/03	4.70	601.90	72	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,200	--
	08/21/03	13.88	592.72	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000	--
	11/13/03	21.00	585.60	230	<50	<0.50	<0.50	<0.50	<0.50	190	<5,000	3.08

Table 1
Groundwater Monitoring Data and Analytical Results
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(ug/L)*	TPHg *(ug/L)*	B *(ug/L)*	T *(ug/L)*	E *(ug/L)*	X *(ug/L)*	T. Lead *(ug/L)*	TOG *(ug/L)*	PRE-PURGE D.O. *(mg/L)*
MW-6	03/15/04	6.66	599.94	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	**--**
(Cont.)	05/19/04	10.15	596.45	<50	<50	<0.50	0.56	0.73	2.0	<5.0	<5,000	--
	08/11/04	17.32	589.28	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	11/11/04	19.72	586.88	<50	<50	<0.50	<0.50	<0.50	<1.0	8.3	<5,000	--
	02/11/05	6.94	599.66	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
607.36	05/19/05	5.93	601.43	<50	<50	<0.30	<0.30	<0.50	<0.50	13	--	**--**
	08/16/05	**11.45**	**595.91**	**<120** [9]	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**8.8**	**<5,000**	**--**
MW-7												
607.29	08/07/02[1]	15.50	591.79	56	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	11/13/02	16.58	590.71	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	02/28/03	6.93	600.36	66	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	04/30/03	3.77	603.52	64	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,200	--
	08/21/03	13.39	593.90	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000	**--**
	11/13/03	19.60	587.69	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	0.83
	03/15/04	6.36	600.93	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	**--**
	05/19/04	10.10	597.19	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	08/11/04	16.18	591.11	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	11/11/04	17.05	590.24	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	02/11/05	6.72	600.57	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
608.07	05/19/05	5.54	602.53	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	--	**--**
	08/16/05	**11.30**	**596.77**	**420** [8]	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**<2.0**	**<5,000**	**--**
MW-8												
606.53	08/07/02[1]	16.30	590.23	<50[3]	<50	<0.50	<0.50	<0.50	<0.50	190	<5,000	--
	11/13/02	20.15	586.38	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	02/28/03	6.18	600.35	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--

Table 1
Groundwater Monitoring Data and Analytical Results
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(ug/L)*	TPHg *(ug/L)*	B *(ug/L)*	T *(ug/L)*	E *(ug/L)*	X *(ug/L)*	T. Lead *(ug/L)*	TOG *(ug/L)*	PRE-PURGE D.O. *(mg/L)*
MW-8	04/30/03	3.98	602.55	59	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
(Cont.)	08/21/03	13.33	593.20	<50	<50	<0.50	0.56	<0.50	<0.50	<50	<5,000	**--**
	11/13/03	20.60	585.93	140	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000	--
	03/15/04	5.72	600.81	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000	**--**
	05/19/04	9.40	597.13	<50	<50	<0.50	<0.50	0.66	1.9	<5.0	<5,000	--
	08/11/04	16.85	589.68	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	11/11/04	19.07	587.46	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	02/11/05	6.03	600.50	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
607.30	05/19/05	5.04	602.26	<50	<50	<0.30	<0.30	<0.50	<0.50	4.9	--	**--**
	08/16/05	**10.73**	**596.57**	**140** [8]	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**7.6**	**<5,000**	**--**
MW-9	08/21/03[1]	14.25	592.42	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000	1.7
606.67	11/13/03	21.45	585.22	55	<50	<0.50	<0.50	<0.50	<0.50	79	<5,000	--
	03/15/04	7.50	599.17	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000	**--**
	05/19/04	10.78	595.89	<50	<50	0.94	0.77	0.95	3.2	<5.0	<5,000	--
	08/11/04	17.67	589.00	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	11/11/04	20.23	586.44	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000	--
	02/11/05	7.77	598.90	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000	--
607.44	05/19/05	6.65	600.79	<50	<50	<0.30	<0.30	<0.50	<0.50	7.4	--	**--**
	08/16/05	**12.00**	**595.44**	**480** [8]	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**9.8**	**<5,000**	**--**
MW-12												
607.33	NOT MONITORED/NOT SAMPLED			--	--	--	--	--	--	--	--	--
608.08	05/19/05	NOT MONITORED/NOT SAMPLED										
	08/16/05	**NOT MONITORED/NOT SAMPLED**										

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(ug/L)*	TPHg *(ug/L)*	B *(ug/L)*	T *(ug/L)*	E *(ug/L)*	X *(ug/L)*	T. Lead *(ug/L)*	TOG *(ug/L)*	PRE-PURGE D.O. *(mg/L)*
Trip Blank												
QA	08/07/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	11/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	02/28/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	04/30/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	08/21/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**
	11/13/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	05/19/04	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--
	08/11/04	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--
	11/11/04	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--
	02/11/05	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--
	05/19/05	--	--	--	<50	<0.30	<0.30	<0.50	<0.50	**--**	**--**	**--**
	08/16/05	--	--	--	**<50**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**--**	**--**	**--**

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

EXPLANATIONS:

TOC = Top of Casing
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
(msl) = Mean sea level
TPHd = Total Petroleum Hydrocarbons as Diesel
NS* Unable to access well due to parked car
TPHg = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
T. Lead = Total Lead
TOG = Total Oil and Grease
(ppb) = Parts per billion
-- = Not Measured/Not Analyzed
QA = Quality Assurance/Trip Blank
D.O. = Dissolved Oxygen
mg/L = Milligrams per liter
µg/L = Microgram per liter

* TOC elevations were re-surveyed on April 13, 2005 by Morrow Surveying. Historically, TOC elevation for MW-9 was surveyed September 4, 2003, by Morrow Surveying, Inc. referencing the previous benchmark. TOC elevations are referenced to msl, and were surveyed June 24, 2002, by Morrow Surveying, Inc. The benchmark used for the survey was a City of Ukiah benchmark.

1 Well development performed.

3 Laboratory report indicates no sample remained for re-extraction.

4 Although sample contains compounds in the retention time range associated gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.

5 Although sample contains compounds in the retention time range associated diesel, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on diesel.

6 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.

7 Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel

Table 2
Ozone Sparging System Monitoring
Data and Analytical Results for MW-1 and MW-2
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC(ft.)	DATE	TPHd (ug/L)	TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Cr+6 (ug/L)	pH pH Units	Molybdenum (ug/L)	Selenium (ug/L)	Vanadium (ug/L)	Bromate (ug/L)	Bromide (ug/L)
MW-1														
608.62	4/14/05*	4,700	1,100	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	120
	4/20/05*	260	160	ND	ND	ND	ND	ND	6.8	ND	ND	ND	ND	57
	5/09/05*	97	540	ND	ND	ND	ND	ND	7.1	ND	ND	ND	ND	39
	5/19/05	4,500	1,100	ND	ND	ND	ND	ND	6.6	ND	ND	ND	--	--
	6/17/05*	180	220	ND	ND	ND	ND	ND	7.0	ND	ND	ND	ND	31
	8/16/05	**83,000**	**2,000**	**0.39**	**<0.30**	**<0.50**	**<0.50**	**<10**	**6.7**	**<20**	**<5**	**<10**	**<5**	**6.5**
MW-2														
608.56	4/14/05*	79	ND	ND	ND	ND	ND	ND	6.4	ND	ND	ND	ND	250
	4/20/05*	2,500	290	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	69
	5/09/05*	310	190	ND	ND	ND	ND	ND	6.8	ND	ND	2.4	ND	85
	5/19/05	91	170	ND	ND	ND	ND	ND	6.7	ND	ND	1.6	--	--
	6/17/05*	260	ND	ND	ND	ND	ND	0.1	6.8	ND	ND	ND	ND	49
	8/16/05	**910**	**290**	**<0.30**	**<0.30**	**<0.50**	**<0.50**	**11**	**6.9**	**<20**	**<5**	**27**	**<5**	**81**

EXPLANATIONS:

TPHd = Total Petroleum Hydrocarbons as Diesel
TPHg = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes (total)
Cr+6 = Hexavalent chromium
ND = Non-detect
-- = Not sampled
µg/L = micrograms per liter
TOC = Top of Casing
ft = feet above mean sea level

* = Samples collected as part of the monthly ozone system monitoring & sampling were collected as grab samples. The samples collected on 5/19/05 and 8/16/05 were collected as part of the quarterly groundwater monitoring program and were collected after a three-casing volume purge.

ATTACHMENT A

FIELD METHODS AND PROCEDURES

FIELD METHODS AND PROCEDURES
Unocal Site No. 813, 122 Leslie Street, Ukiah, CA (Site)
ENSR Project No. 06940-264

The following section describes field procedures that are to be used by ENSR personnel in the performance and quality management of the field work and data evaluation tasks involved with this project.

1. HEALTH AND SAFETY PLAN

The performance of fieldwork and other project services by ENSR and ENSR's subcontractors will be conducted according to guidelines established in the most current, Site-specific Health And Safety Plan (HASP). The HASP describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the HASP is maintained at the Site. Prior to performing work at the Site, personnel will have read the HASP, and sign that they have read the HASP and will perform work at the Site in accordance with the HASP.

2. DECONTAMINATION

Decontamination of equipment brought to and used at the Site is performed in accordance with ENSR SOP No. 7600. The soap solution and rinse water used for decontamination are collected and properly disposed of as described in Section 7.

3. GROUNDWATER DEPTH ASSESSMENT

Initially, all wells for groundwater depth assessment are opened and allowed to equilibrate to atmospheric pressure. Measuring the thickness of liquid-phase hydrocarbons (LPH), if present, and the depth to groundwater are performed in accordance with the applicable sections of ENSR SOP No. 7130. The water level measurement probe is subjectively analyzed for LPH sheen after each measurement.

4. SUBJECTIVE ANALYSIS OF GROUNDWATER

Prior to purging for groundwater monitoring, a groundwater sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

5. GROUNDWATER SAMPLE COLLECTION

5.1 Purged Groundwater Sample

The purging and collection of a groundwater sample are performed in accordance with ENSR SOP No. 7130. Well purging completion standards include minimum purge volumes, and the stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature as described in ENSR SOP Nos. 7124, 7121, and 7123, respectively. Groundwater parameter

readings are obtained at regular intervals during the purging process (no less than once per case volume).

5.2 Dissolved Oxygen Measurement

Dissolved oxygen (D.O.) readings are collected in accordance with ENSR SOP No. 7122 using HORIBA meters (e.g. HORIBA Model U-22 or equivalent D.O. meter). These meters are equipped with a stirring device that enables the collection of in-situ readings.

5.3 Oxidation Reduction Potential (Redox Potential) Measurement

Redox potential readings are obtained with HORIBA meters (e.g. HORIBA Models U-22 or equivalent ORP meter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the manufacturer's instruction manual.

5.4 Grab Groundwater Sample Collection

A grab groundwater sample is collected by lowering a disposable bailer to sufficient depth that the length of the bailer is below the water table.

6. PACKAGING AND SHIPMENT OF SAMPLES

Soil, groundwater, and/or gas samples from field work are packaged and shipped in accordance with ENSR SOP No. 7510.

7. INVESTIGATION-DERIVED WASTE MANAGEMENT

The purge water, decontamination residuals, and aqueous-based, liquid wastes from field work are placed in 55-gallon drums and temporarily stored on-site pending evaluation of disposal options. Solid wastes, such as disposable bailers and paper wipes, generated during field work are packaged in an appropriate container and separately from liquid wastes. Final disposal is performed consistent with accepted regulatory requirements and consistent with requirements specified by Unocal.

8. QUALITY CONTROL

Quality control samples are collected and submitted for analysis. The quality control samples may include field blanks, rinsate blanks, duplicate sample(s), and matrix spike/matrix spike duplicate samples as described in Section 5.0 of ENSR SOP No. 7130.

9. DOCUMENTATION

Documentation of field work is performed consistent with Section 6.0 of ENSR SOP No. 7130 and ENSR SOP No. 7515

ATTACHMENT B

GROUNDWATER SAMPLING INFORMATION DATA

ENSR

GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet below TOC)

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Date: 8-16-05
Recorded by: Troy Wenbrenn

Sampling Order/ Well No.	Time Opened	CGI	PID	O2	Time Measured	Depth to Gr. Water	Measured Total Depth	Depth to Product	Product Thickness	Comments (TOC/TOB) (product skimmer in well)
MW-9	09:21	–	–	–	09:22	12.00	24.61	–	–	~~TAKE D.O. READING~~
MW-6	09:23	–	–	–	09:24	11.45	23.41	–	–	
MW-8	09:27	–	–	–	09:28	10.73	24.79	–	–	
MW-7	09:34	–	–	–	09:35	11.30	24.58	–	–	
MW-4	09:39	–	–	–	09:41	11.88	25.91	–	–	
MW-3	09:43	–	–	–	0944	12.13	25.91	–	–	
MW-2	09:47	–	–	–	09:50	10.55	24.29	–	–	Take DO Reading
MW-5	09:53	–	–	–	09:55	11.90	23.39	–	–	
MW-1	09:58	–	–	–	09:59	11.80	24.11	–	–	Take DO Reading
MW-12	NA	NA	NA	NA	NA	NA	NA			DO NOT SAMPLE

Notes:

DO Reading: MW-2 DO 0.19 mg/L Temp 17.8 °C

Equipment USED: YSI 550A

MW-1: 0.17 mg/L 16.9 °C

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-9**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfos pump

Field Tech(s): Troy Wentham

Weather Conditions: Sunny (74°F)

Casing Material:	pvc	
Well Diameter:	2.00	in.
Total Depth:	24.61	ft from TOC
Depth to Water:	12.00	ft from TOC
Water Column:	12.61	ft.
Water Column Volume:	2.0	gal (WC X VF)

Volume Factor (VF)					
	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38	
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80	

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.52

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm) mS/m	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
11:19	0 0.5	6.3	135	15.5	21.2	5.8	-5.0	Brownish	none	
11:20	1 2.5	5.0	136	15.4	20.8	5.8	-5.0	" "	"	
11:21	2 5.0	4.6	136	15.4	20.6	5.9	6.90	Clear	none	
11:22	3 7.5	4.6	136	15.4	20.4	5.5	4.11	"	"	
	4									

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-9	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	11:35
MW-9	1	1-L Amber	None	TRPH (1664)	11:35
MW-9	1	1-L ~~250-mL~~ Amber	None	TPHd (8015M)	11:35
MW-9	1	500-mL Poly	HNO3	Total Lead (6010)	11:35

Comments: Back-up Grundfos pump malfunction, change-out to primary Grundfos pump - Down a short period.

Signature: [signature]

Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-6**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other (circled) Brainless pump

Field Tech(s): Troy Weber
Weather Conditions: Sunny (79°F)

Casing Material: ______
Well Diameter: 2.00 in.
Total Depth: 23.41 ft from TOC
Depth to Water: 11.45 ft from TOC
Water Column: 11.96 ft.
Water Column Volume: 1.9 gal (WC X VF)

Volume Factor (VF)				
Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.84

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ~~(uS/cm)~~ mS/cm	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
11:59	0 0.5	14.0	187	16.3	21.0	5.9	~5.0	Brown/cloudy	none	
12:00	1 2.5	13.2	188	16.3	20.9	5.8	955	clear	none	
12:01	2 5.0	11.5	187	16.3	20.8	5.8	378	"	"	
12:02	3 7.5	9.4	185	16.3	20.8	5.8	293	"	"	
	4									

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: ~~Disposable Bailer /~~ Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-6	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	12:15
MW-6	1	1-L Amber	None	TRPH (1664)	12:15
MW-6	1	1-L ~~250-mL~~ Amber	None	TPHd (8015M)	12:15
MW-6	1	500-mL Poly	HNO3	Total Lead (6010)	12:15

Comments: ______

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-8**
Well [X] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05 (Grundfos pump)
Purge Method: Disposable bailer/other
Field Tech(s): Troy Wenham
Weather Conditions: Sunny (cool)

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.79 ft from TOC
Depth to Water: 10.73 ft from TOC
Water Column: 14.06 ft.
Water Column Volume: 2.2 gal (WC X VF)

Volume Factor (VF)					
	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38	
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80	

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.54

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ~~(uS/cm)~~ mS/m	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
12:35	0 0.5	10.1	21	16.5	20.8	6.3	250	clear	none	
12:36	1 2.7	5.9	57	16.7	12.4	6.7	220	"	"	
12:37	2 5.0	5.6	63	16.2	21.0	6.1	188	"	"	
12:38	3 7.5	5.7	~~77~~	16.2	21.8	6.0	209	"	"	
	4									

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-8	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	12:50
MW-8	1	1-L Amber	None	TRPH (1664)	12:50
MW-8	1	1-L ~~250-mL~~ Amber	None	TPHd (8015M)	12:50
MW-8	1	500-mL Poly	HNO3	Total Lead (6010)	12:50

Comments:

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-7**
Well [x] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfos pump

Field Tech(s): Troy Weston
Weather Conditions: Sunny (60°F)

Casing Material: PVC
Well Diameter: 4.00 in.
Total Depth: 24.58 ft from TOC
Depth to Water: 11.30 ft from TOC
Water Column: 13.28 ft.
Water Column Volume: 2.1 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.95

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ~~(uS/cm)~~ mS/m	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
13:14	0 0.5	6.4	125	16.5	19.1	6.4	178	clear	none	
13:15	1 2.6	2.2	132	16.8	19.0	5.9	206	"	"	
13:16	2 5.2	2.1	132	16.8	18.9	5.9	205	"	"	
13:17	3 7.6	2.0	132	16.8	18.9	5.9	203	"	"	
	4									

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: ~~Disposable Bailer~~ / Other: Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-7	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	13:30
MW-7	1	1-L Amber	None	TRPH (1664)	13:30
MW-7	1	250-mL Amber	None	TPHd (8015M)	13:30
MW-7	1	500-mL Poly	HNO3	Total Lead (6010)	13:30

Comments:

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-4**
Well ☒ Piezometer ☐

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfos pump

Field Tech(s): Troy Workman
Weather Conditions: Sunny (60°F)

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 11.88 25.91 ft from TOC
Depth to Water: ft from TOC
Water Column: 14.03 ft.
Water Column Volume: 2.2 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.68

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm) mS/cm	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
13:50	0 0.5	2.6	1	17.9	224	6.2	753	clear	none	
13:51	1 2.7	8.9	28	17.6	225	6.0	444	"	"	
13:52	2 5.2	8.2	36	17.5	226	6.0	394	"	"	
13:53	3 7.7	8.5	43	17.4	224	5.9	335	"	"	
	4									

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-4	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	14:05
MW-4	1	1-L Amber	None	TRPH (1664)	14:05
MW-4	1	250-mL Amber	None	TPHd (8015M)	14:05
MW-4	1	500-mL Poly	HNO3	Total Lead (6010)	14:05

Comments:

Signature: Troy Workman Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-3**
Well ☒ Piezometer ☐

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Groundfos pump

Field Tech(s): Troy Workman
Weather Conditions: Sunny (60's F)

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.29 ft from TOC
Depth to Water: 12.13 ft from TOC
Water Column: 12.16 ft.
Water Column Volume: 1.9 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.56

Time		Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
14:21	0	0.5	3.8	-75	19.8	999	6.6	180	clear	None	
14:22	1	2.5	0.7	-109	17.9	999	6.5	351	"	"	
14:23	2	5.0	0.7	-117	17.9	450	6.4	304	"	"	
14:24	3	7.5	0.5	-124	17.8	44.3	6.5	303			
	4										

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailer
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-3	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	14:35
MW-3	1	1-L Amber	None	TRPH (1664)	14:35
MW-3	1	250-mL Amber	None	TPHd (8015M)	14:35
MW-3	1	500-mL Poly	HNO3	Total Lead (6010)	14:35

Comments:

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-2**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfos pump

Field Tech(s): Troy Wahn
Weather Conditions: Sunny (100°F)

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 25.91 ft from TOC
Depth to Water: 10.55 ft from TOC
Water Column: 15.36 ft.
Water Column Volume: 2.4 gal (WC X VF)

Volume Factor (VF)				
3/4" = 0.02	1" = 0.04	2" = .16	3" = .38	
4" = .66	5" = 1.02	6" = 1.50	12" = 5.80	

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.62

Time		Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ~~(uS/cm)~~ mS/m	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
15:19	0	0.5	6.6	-73	18.1	16.3	6.6	<5.0	grey/cloudy	none	
15:20	1	3.0	6.5	-75	17.0	32.3	6.4	<5.0	" "	"	
15:21	2	6.0	0.9	-101	16.8	28.0	6.4	<5.0	" "	"	
15:22	3	9.0	0.8	-98	16.9	29.0	6.4	<5.0	" "	"	
	4										

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-2	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	15:45
MW-2	1	1-L Amber	None	TRPH (1664)	15:45
MW-2	1	250-mL Amber	None	TPHd (8015M)	15:45
MW-2	1	500-mL Poly	HNO3	Total Lead (6010)	15:45
MW-2	1	250-mL Amber	None	Bromate (300)	15:45
MW-2	1	500-mL Poly	None	Bromide (300.0)	15:45
MW-2	1	500-mL Poly	None	Chromium VI (7199) / pH (150.1)	15:45
MW-2	1	500-mL Poly	HNO3	Molybdenum (200.7) / Selenium (200.9) / Vanadium (200.7)	15:45

Comments:

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-5**
Well [X] Piezometer [ ]

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfospump

Field Tech(s): Tony Weber
Weather Conditions: Sunny (Cloudy)

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 23.39 ft from TOC
Depth to Water: 11.90 ft from TOC
Water Column: 11.49 ft.
Water Column Volume: 1.8 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.19

Time		Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
16:05	0	0.5	4.3	-96	17.0	22.1	6.7	630	clear	none	
16:06	1	2.5	1.6	-84	16.8	22.7	6.6	645	"	"	
16:07	2	5.0	0.8	-85	16.7	22.1	6.4	523	"	"	
16:08	3	7.5	0.6	-84	16.6	22.0	6.4	483			
	4										

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailed
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-5	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	16:20
MW-5	1	1-L Amber	None	TRPH (1664)	16:20
MW-5	1	250-mL Amber	None	TPHd (8015M)	16:20
MW-5	1	500-mL Poly	HNO3	Total Lead (6010)	16:20

Comments:

Signature: [signature] Date: 8-16-05

ENSR

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-1**

Well [X] Piezometer [ ]

Field Tech(s): Troy Workman

Weather Conditions: Sunny (60°F)

Well Purging:
Date Purged: 8-16-05
Purge Method: Disposable bailer/other Grundfos pump

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.11 ft from TOC
Depth to Water: 11.80 ft from TOC
Water Column: 12.31 ft.
Water Column Volume: 1.9 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.26

Time		Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
16:39	0	0.5	4.1	-111	19.5	25.7	6.4	-5.0	grey/cloudy	odor/sheen	
16:40	1	2.5	2.3	-106	18.1	28.2	6.4	-5.0	" "	" "	
16:41	2	5.0	1.4	-107	17.7	30.3	6.4	-5.0	" "	" "	
16:42	3	7.5	0.8	-116	17.4	30.8	6.4	-5.0	" "	" "	
	4										

Sample Collection:
Date Sampled: 8-16-05
Sampling Method: Disposable Bailer / Other Bailer
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-1	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	16:58
MW-1	1	1-L Amber	None	TRPH (1664)	16:58
MW-1	1	250-mL Amber	None	TPHd (8015M)	16:58
MW-1	1	500-mL Poly	HNO3	Total Lead (6010)	16:58
MW-1	1	250-mL Amber	None	Bromate (300)	16:58
MW-1	1	500-mL Poly	None	Bromide (300.0)	16:58
MW-1	1	500-mL Poly	None	Chromium VI (7199) / pH (150.1)	16:58
MW-1	1	500-mL Poly	HNO3	Molybdenum (200.7) / Selenium (200.9) / Vanadium (200.7)	16:58

Comments:

Signature: [signature] Date: 8-16-05

ATTACHMENT C

LABORATORY ANALYTICAL RESULTS WITH CHAIN-OF-CUSTODY DOCUMENTATION

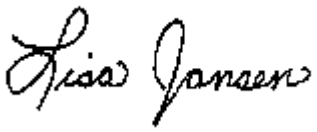
Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

31 August 2005

Paul Wadding
ENSR International
10411 Old Placerville Rd., Suite 210
Sacramento, CA 95827-2508
RE: Unocal #0813, Ukiah
Work Order: A508465

Enclosed are the results of analyses for samples received by the laboratory on 08/16/05 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa E. Jansen For Sheri L. Speaks
Project Manager

Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	A508465-01	Water	08/16/05 16:58	08/16/05 17:15
MW-2	A508465-02	Water	08/16/05 15:45	08/16/05 17:15
MW-3	A508465-03	Water	08/16/05 14:35	08/16/05 17:15
MW-4	A508465-04	Water	08/16/05 14:05	08/16/05 17:15
MW-5	A508465-05	Water	08/16/05 16:20	08/16/05 17:15
MW-6	A508465-06	Water	08/16/05 12:15	08/16/05 17:15
MW-7	A508465-07	Water	08/16/05 13:30	08/16/05 17:15
MW-8	A508465-08	Water	08/16/05 12:50	08/16/05 17:15
MW-9	A508465-09	Water	08/16/05 11:35	08/16/05 17:15
QA	A508465-10	Water	08/16/05 00:00	08/16/05 17:15

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals by EPA 200 Series Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water	**Sampled: 08/16/05 16:58**	**Received: 08/16/05 17:15**								
Lead	**0.022**		0.0040	mg/l	2	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-2 (A508465-02) Water	**Sampled: 08/16/05 15:45**	**Received: 08/16/05 17:15**								
Lead	**0.056**		0.020	mg/l	10	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-3 (A508465-03) Water	**Sampled: 08/16/05 14:35**	**Received: 08/16/05 17:15**								
Lead	**0.0024**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-4 (A508465-04) Water	**Sampled: 08/16/05 14:05**	**Received: 08/16/05 17:15**								
Lead	**0.0030**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-5 (A508465-05) Water	**Sampled: 08/16/05 16:20**	**Received: 08/16/05 17:15**								
Lead	**0.0030**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-6 (A508465-06) Water	**Sampled: 08/16/05 12:15**	**Received: 08/16/05 17:15**								
Lead	**0.0088**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-7 (A508465-07) Water	**Sampled: 08/16/05 13:30**	**Received: 08/16/05 17:15**								
Lead	ND		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-8 (A508465-08) Water	**Sampled: 08/16/05 12:50**	**Received: 08/16/05 17:15**								
Lead	**0.0076**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	
MW-9 (A508465-09) Water	**Sampled: 08/16/05 11:35**	**Received: 08/16/05 17:15**								
Lead	**0.0098**		0.0020	mg/l	1	AH52203	08/22/05	08/27/05	EPA 200.9	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals (Dissolved) by EPA 200 Series Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water	**Sampled: 08/16/05 16:58**	**Received: 08/16/05 17:15**								
Molybdenum, dissolved	ND	0.0014	0.020	mg/l	1	AH52202	08/22/05	08/29/05	EPA 200.7	U
Selenium, dissolved	ND		0.0050	"	"	"	"	08/24/05	EPA 200.9	
Vanadium, dissolved	ND	0.0022	0.010	"	"	"	"	08/29/05	EPA 200.7	U
MW-2 (A508465-02) Water	**Sampled: 08/16/05 15:45**	**Received: 08/16/05 17:15**								
Molybdenum, dissolved	ND	0.0014	0.020	mg/l	1	AH52202	08/22/05	08/29/05	EPA 200.7	U
Selenium, dissolved	ND		0.0050	"	"	"	"	08/24/05	EPA 200.9	
Vanadium, dissolved	**0.027**	0.0022	0.010	"	"	"	"	08/29/05	EPA 200.7	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals by EPA 6000/7000 Series Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water	**Sampled: 08/16/05 16:58**	**Received: 08/16/05 17:15**								
Chromium, hexavalent	ND	0.0050	0.010	mg/l	1	AH51714	08/17/05	08/17/05	EPA 7196	A-01, U
MW-2 (A508465-02) Water	**Sampled: 08/16/05 15:45**	**Received: 08/16/05 17:15**								
Chromium, hexavalent	**0.011**	0.0050	0.020	mg/l	1	AH51714	08/17/05	08/17/05	EPA 7196	A-01, R-01, J

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Conventional Chemistry Parameters by APHA/EPA Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water	**Sampled: 08/16/05 16:58**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	**5.2**		5.0	mg/l	1	AH52411	08/24/05	08/29/05	EPA 1664	
pH	**6.7**		1.0	pH Units	"	AH51716	08/17/05	08/17/05	EPA 150.1	
MW-2 (A508465-02) Water	**Sampled: 08/16/05 15:45**	**Received: 08/16/05 17:15**								
pH	**6.9**		1.0	pH Units	1	AH51716	08/17/05	08/17/05	EPA 150.1	
Oil & Grease (HEM-SG)	ND		5.0	mg/l	"	AH52411	08/24/05	08/26/05	EPA 1664	
MW-3 (A508465-03) Water	**Sampled: 08/16/05 14:35**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	
MW-4 (A508465-04) Water	**Sampled: 08/16/05 14:05**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	
MW-5 (A508465-05) Water	**Sampled: 08/16/05 16:20**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	**5.0**		5.0	mg/l	1	AH52411	08/24/05	08/29/05	EPA 1664	
MW-6 (A508465-06) Water	**Sampled: 08/16/05 12:15**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	
MW-7 (A508465-07) Water	**Sampled: 08/16/05 13:30**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	
MW-8 (A508465-08) Water	**Sampled: 08/16/05 12:50**	**Received: 08/16/05 17:15**								
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	

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ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Conventional Chemistry Parameters by APHA/EPA Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (A508465-09) Water Sampled: 08/16/05 11:35 Received: 08/16/05 17:15										
Oil & Grease (HEM-SG)	ND		5.0	mg/l	1	AH52411	08/24/05	08/26/05	EPA 1664	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

TPH by EPA/LUFT GC/GCMS Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water	**Sampled: 08/16/05 16:58**	**Received: 08/16/05 17:15**								
TPH as Gasoline	**2000**		500	ug/l	10	AH52302	08/20/05	08/23/05	8260GRO	
TPH as Diesel	**83000**		500	"	"	AH52623	08/26/05	08/29/05	8015DRO	
Surrogate: Tetratetracontane		*%*	*20-152*			*"*	*"*	*"*	*"*	*S-06*
Surrogate: Toluene-d8		*106 %*	*86-141*			*AH52302*	*08/20/05*	*08/23/05*	*8260GRO*	
MW-2 (A508465-02) Water	**Sampled: 08/16/05 15:45**	**Received: 08/16/05 17:15**								
TPH as Diesel	**910**		50	ug/l	1	AH52623	08/26/05	08/26/05	8015DRO	D-07
TPH as Gasoline	**290**		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*106 %*	*20-152*			*AH52623*	*08/26/05*	*08/26/05*	*8015DRO*	
Surrogate: Toluene-d8		*110 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-3 (A508465-03) Water	**Sampled: 08/16/05 14:35**	**Received: 08/16/05 17:15**								
TPH as Diesel	**370**		50	ug/l	1	AH52623	08/26/05	08/26/05	8015DRO	D-18
TPH as Gasoline	**470**		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*75.5 %*	*20-152*			*AH52623*	*08/26/05*	*08/26/05*	*8015DRO*	
Surrogate: Toluene-d8		*109 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-4 (A508465-04) Water	**Sampled: 08/16/05 14:05**	**Received: 08/16/05 17:15**								
TPH as Gasoline	ND		50	ug/l	1	AH52206	08/18/05	08/19/05	8260GRO	
TPH as Diesel	**210**		50	"	"	AH52623	08/26/05	08/26/05	8015DRO	D-18
Surrogate: Tetratetracontane		*92.8 %*	*20-152*			*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*109 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-5 (A508465-05) Water	**Sampled: 08/16/05 16:20**	**Received: 08/16/05 17:15**								
TPH as Diesel	**170**		50	ug/l	1	AH52623	08/26/05	08/26/05	8015DRO	D-18
TPH as Gasoline	ND		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*103 %*	*20-152*			*AH52623*	*08/26/05*	*08/26/05*	*8015DRO*	
Surrogate: Toluene-d8		*111 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	

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ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

TPH by EPA/LUFT GC/GCMS Methods
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (A508465-06) Water Sampled: 08/16/05 12:15 Received: 08/16/05 17:15										
TPH as Diesel	ND		120	ug/l	1	AH52623	08/26/05	08/26/05	8015DRO	QB-03
TPH as Gasoline	ND		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*90.4 %*	*20-152*			*AH52623*	*08/26/05*	*08/26/05*	*8015DRO*	
Surrogate: Toluene-d8		*111 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-7 (A508465-07) Water Sampled: 08/16/05 13:30 Received: 08/16/05 17:15										
TPH as Diesel	**420**		50	ug/l	1	AH52623	08/26/05	08/27/05	8015DRO	D-18
TPH as Gasoline	ND		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*92.8 %*	*20-152*			*AH52623*	*08/26/05*	*08/27/05*	*8015DRO*	
Surrogate: Toluene-d8		*109 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-8 (A508465-08) Water Sampled: 08/16/05 12:50 Received: 08/16/05 17:15										
TPH as Gasoline	ND		50	ug/l	1	AH52206	08/18/05	08/19/05	8260GRO	
TPH as Diesel	**140**		50	"	"	AH52623	08/26/05	08/27/05	8015DRO	D-18
Surrogate: Tetratetracontane		*97.6 %*	*20-152*			"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
MW-9 (A508465-09) Water Sampled: 08/16/05 11:35 Received: 08/16/05 17:15										
TPH as Diesel	**480**		50	ug/l	1	AH52623	08/26/05	08/27/05	8015DRO	D-18
TPH as Gasoline	ND		50	"	"	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Tetratetracontane		*109 %*	*20-152*			*AH52623*	*08/26/05*	*08/27/05*	*8015DRO*	
Surrogate: Toluene-d8		*112 %*	*86-141*			*AH52206*	*08/18/05*	*08/19/05*	*8260GRO*	
QA (A508465-10) Water Sampled: 08/16/05 00:00 Received: 08/16/05 17:15										
TPH as Gasoline	ND		50	ug/l	1	AH52206	08/18/05	08/19/05	8260GRO	
Surrogate: Toluene-d8		*111 %*	*86-141*			"	"	"	"	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Volatile Organic Compounds by EPA Method 8260B
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (A508465-01) Water Sampled: 08/16/05 16:58 Received: 08/16/05 17:15										
Benzene	**0.39**		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*110 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*90.0 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*114 %*	*88-139*			"	"	"	"	
MW-2 (A508465-02) Water Sampled: 08/16/05 15:45 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*111 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*110 %*	*88-139*			"	"	"	"	
MW-3 (A508465-03) Water Sampled: 08/16/05 14:35 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*109 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*99.2 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*88-139*			"	"	"	"	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Volatile Organic Compounds by EPA Method 8260B
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (A508465-04) Water Sampled: 08/16/05 14:05 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*108 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*88-139*			"	"	"	"	
MW-5 (A508465-05) Water Sampled: 08/16/05 16:20 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*110 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*88-139*			"	"	"	"	
MW-6 (A508465-06) Water Sampled: 08/16/05 12:15 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*107 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*88-139*			"	"	"	"	

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Lisa Jansen

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Volatile Organic Compounds by EPA Method 8260B
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (A508465-07) Water Sampled: 08/16/05 13:30 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*106 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*88-139*			"	"	"	"	
MW-8 (A508465-08) Water Sampled: 08/16/05 12:50 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*105 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*88-139*			"	"	"	"	
MW-9 (A508465-09) Water Sampled: 08/16/05 11:35 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*106 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*88-139*			"	"	"	"	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Volatile Organic Compounds by EPA Method 8260B
Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
QA (A508465-10) Water Sampled: 08/16/05 00:00 Received: 08/16/05 17:15										
Benzene	ND		0.30	ug/l	1	AH52210	08/18/05	08/19/05	EPA 8260B	
Toluene	ND		0.30	"	"	"	"	"	"	
Ethylbenzene	ND		0.50	"	"	"	"	"	"	
Xylenes (total)	ND		0.50	"	"	"	"	"	"	
Surrogate: Bromofluorobenzene		*104 %*	*78-138*			"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*	*71-136*			"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*88-139*			"	"	"	"	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals by EPA 200 Series Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52203 - EPA 200.2 Hot Plate											
Blank (AH52203-BLK1)					Prepared: 08/22/05 Analyzed: 08/26/05						
Lead	ND		0.0020	mg/l							
LCS (AH52203-BS1)					Prepared: 08/22/05 Analyzed: 08/26/05						
Lead	0.104		0.020	mg/l	0.100		104	85-115			
LCS Dup (AH52203-BSD1)					Prepared: 08/22/05 Analyzed: 08/26/05						
Lead	0.102		0.020	mg/l	0.100		102	85-115	1.94	20	
Duplicate (AH52203-DUP1)		**Source: A508465-01**			Prepared: 08/22/05 Analyzed: 08/27/05						
Lead	0.0231		0.0040	mg/l		0.022			4.88	20	
Matrix Spike (AH52203-MS1)		**Source: A508465-01**			Prepared: 08/22/05 Analyzed: 08/26/05						
Lead	0.126		0.020	mg/l	0.100	0.022	104	70-130			
Matrix Spike Dup (AH52203-MSD1)		**Source: A508465-01**			Prepared: 08/22/05 Analyzed: 08/26/05						
Lead	0.129		0.020	mg/l	0.100	0.022	107	70-130	2.35	20	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
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10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52202 - EPA 200.2 Hot Plate											
Blank (AH52202-BLK1)					Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	ND	0.0014	0.020	mg/l							U
Selenium, dissolved	ND		0.0050	"							
Vanadium, dissolved	ND	0.0022	0.010	"							U
LCS (AH52202-BS1)					Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	0.111	0.0014	0.020	mg/l	0.100		111	85-115			
Selenium, dissolved	0.00859		0.0050	"	0.0100		85.9	85-115			
Vanadium, dissolved	0.0978	0.0022	0.010	"	0.100		97.8	85-115			
LCS Dup (AH52202-BSD1)					Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	0.111	0.0014	0.020	mg/l	0.100		111	85-115	0.00	20	
Selenium, dissolved	0.00952		0.0050	"	0.0100		95.2	85-115	10.3	20	
Vanadium, dissolved	0.0964	0.0022	0.010	"	0.100		96.4	85-115	1.44	20	
Duplicate (AH52202-DUP1)		**Source: A508465-02**			Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	ND	0.0014	0.020	mg/l		ND				20	U
Selenium, dissolved	ND		0.0050	"		ND				20	
Vanadium, dissolved	0.0326	0.0022	0.010	"		0.027			18.8	20	
Matrix Spike (AH52202-MS1)		**Source: A508465-02**			Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	0.0964	0.0014	0.020	mg/l	0.100	ND	96.4	70-130			
Selenium, dissolved	0.00414		0.0050	"	0.0100	ND	41.4	70-130			QM-01
Vanadium, dissolved	0.123	0.0022	0.010	"	0.100	0.027	96.0	70-130			
Matrix Spike Dup (AH52202-MSD1)		**Source: A508465-02**			Prepared: 08/22/05 Analyzed: 08/29/05						
Molybdenum, dissolved	0.0930	0.0014	0.020	mg/l	0.100	ND	93.0	70-130	3.59	20	
Selenium, dissolved	0.00477		0.0050	"	0.0100	ND	47.7	70-130	14.1	20	QM-01
Vanadium, dissolved	0.122	0.0022	0.010	"	0.100	0.027	95.0	70-130	0.816	20	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Metals by EPA 6000/7000 Series Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH51714 - EPA 7196A Cr6 Water											
Blank (AH51714-BLK1)					Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	ND	0.0050	0.010	mg/l							U
LCS (AH51714-BS1)					Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	0.0993	0.0050	0.010	mg/l	0.100		99.3	80-120			
LCS Dup (AH51714-BSD1)					Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	0.100	0.0050	0.010	mg/l	0.100		100	80-120	0.702	20	
Duplicate (AH51714-DUP1)		**Source: A508465-01**			Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	ND	0.0050	0.010	mg/l		ND				20	U
Matrix Spike (AH51714-MS1)		**Source: A508465-01**			Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	0.0266	0.0050	0.010	mg/l	0.100	ND	26.6	0-200			
Matrix Spike Dup (AH51714-MSD1)		**Source: A508465-01**			Prepared & Analyzed: 08/17/05						
Chromium, hexavalent	0.0256	0.0050	0.010	mg/l	0.100	ND	25.6	0-200	3.83	20	

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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH51716 - General Preparation											
Duplicate (AH51716-DUP1)		**Source: A508498-01**			Prepared & Analyzed: 08/17/05						
pH	6.76		1.0	pH Units		6.7			0.892	20	
Batch AH52411 - General Preparation											
Blank (AH52411-BLK1)					Prepared: 08/24/05 Analyzed: 08/26/05						
Oil & Grease (HEM-SG)	ND		5.0	mg/l							
LCS (AH52411-BS1)					Prepared: 08/24/05 Analyzed: 08/26/05						
Oil & Grease (HEM-SG)	8.30		5.0	mg/l	10.0		83.0	66-114			
LCS Dup (AH52411-BSD1)					Prepared: 08/24/05 Analyzed: 08/26/05						
Oil & Grease (HEM-SG)	8.10		5.0	mg/l	10.0		81.0	66-114	2.44	24	

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10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

TPH by EPA/LUFT GC/GCMS Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52206 - EPA 5030 Water GCMS											
Blank (AH52206-BLK1)					Prepared & Analyzed: 08/18/05						
TPH as Gasoline	ND		50	ug/l							
Surrogate: Toluene-d8	*27.8*			*"*	*25.0*		*111*	*86-141*			
LCS (AH52206-BS1)					Prepared & Analyzed: 08/18/05						
TPH as Gasoline	200		50	ug/l	200		100	75-126			
Surrogate: Toluene-d8	*28.7*			*"*	*25.0*		*115*	*86-141*			
LCS Dup (AH52206-BSD1)					Prepared & Analyzed: 08/18/05						
TPH as Gasoline	197		50	ug/l	200		98.5	75-126	1.51	20	
Surrogate: Toluene-d8	*28.0*			*"*	*25.0*		*112*	*86-141*			
Matrix Spike (AH52206-MS1)		**Source: A508464-02**			Prepared & Analyzed: 08/18/05						
TPH as Gasoline	211		50	ug/l	200	9.0	101	32-166			
Surrogate: Toluene-d8	*28.7*			*"*	*25.0*		*115*	*86-141*			
Batch AH52302 - EPA 5030 Water GCMS											
Blank (AH52302-BLK1)					Prepared: 08/20/05 Analyzed: 08/22/05						
TPH as Gasoline	ND		50	ug/l							
Surrogate: Toluene-d8	*27.6*			*"*	*25.0*		*110*	*86-141*			
LCS (AH52302-BS1)					Prepared: 08/20/05 Analyzed: 08/22/05						
TPH as Gasoline	183		50	ug/l	200		91.5	75-126			
Surrogate: Toluene-d8	*28.3*			*"*	*25.0*		*113*	*86-141*			
LCS Dup (AH52302-BSD1)					Prepared: 08/20/05 Analyzed: 08/22/05						
TPH as Gasoline	180		50	ug/l	200		90.0	75-126	1.65	20	
Surrogate: Toluene-d8	*27.7*			*"*	*25.0*		*111*	*86-141*			

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10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

TPH by EPA/LUFT GC/GCMS Methods - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52302 - EPA 5030 Water GCMS											
Matrix Spike (AH52302-MS1)		**Source: A508470-01**			Prepared: 08/20/05 Analyzed: 08/22/05						
TPH as Gasoline	104		50	ug/l	200	7.2	48.4	32-166			
Surrogate: Toluene-d8	*27.3*			*"*	*25.0*		*109*	*86-141*			
Batch AH52623 - EPA 3510B Water											
Blank (AH52623-BLK1)					Prepared & Analyzed: 08/26/05						
TPH as Diesel	ND		100	ug/l							QB-03
Surrogate: Tetratetracontane	*89.0*			*"*	*125*		*71.2*	*20-152*			
LCS (AH52623-BS1)					Prepared & Analyzed: 08/26/05						
TPH as Diesel	1940		50	ug/l	2000		97.0	52-136			
Surrogate: Tetratetracontane	*108*			*"*	*125*		*86.4*	*20-152*			
LCS Dup (AH52623-BSD1)					Prepared & Analyzed: 08/26/05						
TPH as Diesel	1880		50	ug/l	2000		94.0	52-136	3.14	25	
Surrogate: Tetratetracontane	*110*			*"*	*125*		*88.0*	*20-152*			

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10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52210 - EPA 5030 Water GCMS											
Blank (AH52210-BLK1)					Prepared & Analyzed: 08/18/05						
Benzene	ND		0.30	ug/l							
Toluene	ND		0.30	"							
Ethylbenzene	ND		0.50	"							
Xylenes (total)	ND		0.50	"							
Surrogate: Bromofluorobenzene	*26.9*			*"*	*25.0*		*108*	*78-138*			
Surrogate: Dibromofluoromethane	*25.8*			*"*	*25.0*		*103*	*71-136*			
Surrogate: Toluene-d8	*27.8*			*"*	*25.0*		*111*	*88-139*			
LCS (AH52210-BS1)					Prepared & Analyzed: 08/18/05						
Benzene	11.0		0.30	ug/l	10.0		110	68-129			
Toluene	11.4		0.30	"	10.0		114	76-137			
Ethylbenzene	11.4		0.50	"	10.0		114	78-136			
Xylenes (total)	32.4		0.50	"	30.0		108	76-134			
Surrogate: Bromofluorobenzene	*25.9*			*"*	*25.0*		*104*	*78-138*			
Surrogate: Dibromofluoromethane	*24.8*			*"*	*25.0*		*99.2*	*71-136*			
Surrogate: Toluene-d8	*26.7*			*"*	*25.0*		*107*	*88-139*			
LCS Dup (AH52210-BSD1)					Prepared & Analyzed: 08/18/05						
Benzene	10.6		0.30	ug/l	10.0		106	68-129	3.70	25	
Toluene	11.0		0.30	"	10.0		110	76-137	3.57	25	
Ethylbenzene	10.9		0.50	"	10.0		109	78-136	4.48	25	
Xylenes (total)	31.0		0.50	"	30.0		103	76-134	4.42	25	
Surrogate: Bromofluorobenzene	*25.4*			*"*	*25.0*		*102*	*78-138*			
Surrogate: Dibromofluoromethane	*24.6*			*"*	*25.0*		*98.4*	*71-136*			
Surrogate: Toluene-d8	*26.2*			*"*	*25.0*		*105*	*88-139*			
Matrix Spike (AH52210-MS1)		**Source: A508464-01**			Prepared & Analyzed: 08/18/05						
Benzene	4.75		0.30	ug/l	10.0	ND	47.5	39-142			
Toluene	4.85		0.30	"	10.0	ND	48.5	44-148			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Alpha Analytical Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AH52210 - EPA 5030 Water GCMS											
Matrix Spike (AH52210-MS1)		**Source: A508464-01**			Prepared & Analyzed: 08/18/05						
Ethylbenzene	4.50		0.50	ug/l	10.0	ND	45.0	42-148			
Xylenes (total)	12.7		0.50	"	30.0	ND	42.3	43-145			QM-05
Surrogate: Bromofluorobenzene	*26.7*			*"*	*25.0*		*107*	*78-138*			
Surrogate: Dibromofluoromethane	*24.9*			*"*	*25.0*		*99.6*	*71-136*			
Surrogate: Toluene-d8	*27.4*			*"*	*25.0*		*110*	*88-139*			

Alpha Analytical Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Jansen

Lisa E. Jansen For Sheri L. Speaks, Project Manager

Alpha Analytical Laboratories Inc.
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Sacramento CA, 95827-2508	Project Manager: Paul Wadding	
ENSR International	Project: Unocal #0813, Ukiah	Reported:
10411 Old Placerville Rd., Suite 210	Project Number: 06940-264-100	08/31/05 07:57

Notes and Definitions

U	Analyte included in analysis, but not detected at or above MDL.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-01	The spike recovery for this QC sample is outside of established control limits possibly due to a sample matrix interference.
QB-03	The method blank contains analyte at a concentration above the MRL; sample reporting limits were raised as necessary.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
D-18	The sample chromatographic pattern does not resemble the diesel standard used for calibration.
D-07	Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel.
A-01	The Reporting Limits were raised due to instrument failure. The samples needed to be analyzed by a different, less sensitive method.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Lisa Jansen

Lisa E. Jansen For Sheri L. Speaks, Project Manager

BSK ANALYTICAL LABORATORIES

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Sheri L. Speaks
Alpha Analytical Laboratories Inc
208 Mason Street
Ukiah, CA 95482

Report Issue Date: 08/29/2005

BSK Submission #: 2005081544

BSK Sample ID #: 622338

Project ID: A508465

Project Desc:

Submission Comments:

Sample Type: Liquid

Sample Description: A508465-01 MW-1

Sample Comments:

Date Sampled: 08/16/2005
Time Sampled: 1658
Date Received: 08/18/2005

Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
Bromate (BrO3) with Ag/Ba Clean Up	EPA 300.1	**ND**	mg/L	0.005	1	0.005	08/23/05	08/23/05
Bromide (Br)	EPA 300.1	**0.065**	mg/L	0.005	1	0.005	08/19/05	08/19/05

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.

Report Authentication Code: *622338-0.0650*

1414 Stanislaus Street Fresno, CA 93706-1623 Phone 559-497-2888, In CA 800-877-8310 Fax 559-485-6935

BSK ANALYTICAL LABORATORIES

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Sheri L. Speaks
Alpha Analytical Laboratories Inc
208 Mason Street
Ukiah, CA 95482

BSK Submission #: 2005081544

BSK Sample ID #: 622339

Report Issue Date: 08/29/2005

Project ID: A508465 Project Desc:

Submission Comments:

Sample Type: Liquid

Sample Description: A508465-02 MW-2

Sample Comments:

Date Sampled: 08/16/2005
Time Sampled: 1545
Date Received: 08/18/2005

Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
Bromate (BrO3) with Ag/Ba Clean Up	EPA 300.1	**ND**	mg/L	0.005	1	0.005	08/23/05	08/23/05
Bromide (Br)	EPA 300.1	**0.081**	mg/L	0.005	1	0.005	08/19/05	08/19/05

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.

Report Authentication Code: *622339-0.0810*

1414 Stanislaus Street Fresno, CA 93706-1623 Phone 559-497-2888, In CA 800-877-8310 Fax 559-485-6935

CHAIN OF CUSTODY

Lab: Alpha Analytical

TAT: Standard

Report results to:

Name	Margret Riggin
Company	ENSR
Mailing Address	10411 Old Placerville Road, Suite 210
City, State, Zip	Sacramento, CA 95827-2508
Telephone No.	916-362-7100
Fax No.	916-362-8100
E-Mail	mriggin@ensr.com

Project Information

Site Address:	122 Leslie St., Ukiah, CA
ENSR No.	06940-264-100
Unocal No.	813
Global ID No.	T0604593441

Special instructions and/or specific regulatory requirements:

RUN CrVI 7196A in order to get analyses done w/in hold time (IC isn't working) If IC is up w/in 24 hrs. of hold-time, run on IC per Dave Wadding.
DW 8.17.05 14:20

Sample Identification	Date Sampled	Time Sampled	Matrix/ Media	No. of Conts.	TPHg (8015)	BTEX (8021B)	TRPH (1664) O&G (1664)	Total Lead (6010)	TPHd (8015)	Bromate (300) / Bromide (300.0)	Chromium VI (7199)	Molybdenum / Vanadium (200.7)	Selenium (200.9)	pH (150.1)		Sample Condition/Comments	Preservative
MW-1	8-16-05	16:58	GW	10	X	X	X	X	X	X	X	X	X	X		AS084605-01	HCl/HNO3
MW-2	8-16-05	15:45	GW	10	X	X	X	X	X	X	X	X	X	X		2	HCl/HNO3
MW-3	8-16-05	14:35	GW	6	X	X	X	X	X							3	HCl/HNO3
MW-4	8-16-05	14:05	GW	6	X	X	X	X	X							4	HCl/HNO3
MW-5	8-16-05	16:20	GW	6	X	X	X	X	X							5	HCl/HNO3
MW-6	8-16-05	12:15	GW	6	X	X	X	X	X							6	HCl/HNO3
MW-7	8-16-05	13:30	GW	6	X	X	X	X	X							7	HCl/HNO3
MW-8	8-16-05	12:50	GW	6	X	X	X	X	X							8	HCl/HNO3
MW-9	8-16-05	11:35	GW	6	X	X	X	X	X							9	HCl/HNO3
QA	—	—	Liquid	2	X	X											Ice

Collected by: Troy Wenham **Date/Time** 8-16-05 **Collector's Signature:** **Date/Time** 8-16-05

Relinquished by: Troy Wenham **Date/Time** 8-16-05 17:15 **Received by:** **Date/Time** 8-16-05 17:15

Relinquished by: **Date/Time** **Received by:** **Date/Time**

Method of Shipment: **Sample Condition on Rcpt:**

* 8.2